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ABSTRACT

This User's Manual is intended to accompany VOC-PLAN, a computer (Apple) program designed to assist in the preparation of an Individualized Vocational Education Program (IVEP) for handicapped, disadvantaged, or regular vocational secondary and postsecondary students. The program is presented in standard IEP (Individualized Education Program) format and allows the user to define criteria for mastery, evaluation techniques, review dates, and tasks mastered for each vocational objective. The program contains over 2,500 short term vocational objectives in such areas as agriculture, auto body work, construction, cosmetology, data processing, marketing, drafting, electronics, food service, graphic arts, health, home economics, horticulture, industrial arts, metals, and transportation. Voc-Plan includes a program disk, a data disk for each vocational training area requested, a student disk, the User's Manual, and 50 standard IEP forms. The manual contains instructions for the following program actions: creating an IEP, printing IEP objectives, changing IEP data disk, printing the student IEP, getting/saving and erasing the IEP from disk, erasing the IEP from memory, adding/editing IEP objectives, creating a student disk, and quitting. A full listing of the short term vocational objectives by area are appended, comprising the greater part of the document. Also included is a preview manual with a program description and sample screen layouts. (DB)

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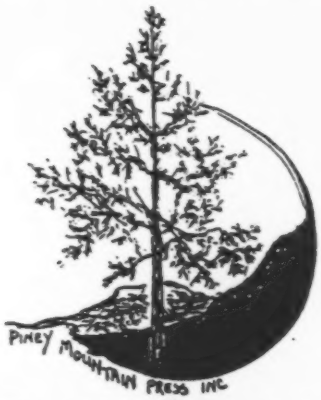
VOC-PLAN

Individual Vocational Education Plan

[A Quick, Efficient and Creative Way to Generate Vocational I.E.P.s]



USERS MANUAL

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INTRODUCTION

* VOC-PLAN is a user friendly computer program designed to provide Special Needs Educators as well as regular vocational instructors with a quick, efficient method of developing an Individualized Vocational Education Program for their students.

* VOC-PLAN enables instructors to create a more flexible and definitive educational plan than traditional hand developed methods and in a fraction of the time.

* VOC-PLAN is truly individualized since the bank of short term objectives can be modified to suit the instructor's, the educator's, the student's and the school system's specific needs.

* VOC-PLAN is presented in a standard I.E.P. format so that it can be used as a formal Vocational I.E.P. for handicapped individuals or as an informal Vocational Plan for disadvantaged and regular vocational students.

* VOC-PLAN allows the user to define the Criteria for Mastery, Evaluation Techniques, Review Dates and Tasks Mastered for each vocational objective.

* VOC-PLAN contains over 2,500 short term vocational objectives for all secondary and post secondary training programs including the following vocational areas:

Agriculture	DE/Marketing	Health
Auto Body	Drafting	Home Economics
Construction	Electro-Mech Tech	Horticulture
Cosmetology	Electronics	Industrial Arts
Data Processing	Food Service	Metals
DCT	Graphic Arts	Transportation

(The above titles may be modified to your specific course titles)

* VOC-PLAN includes 1 Program Disk, 1 Data Disk for each vocational training area requested, 1 Student Disk, 1 User's Manual, and 50 Standard I.E.P. Forms (3 page, NCR)

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ORGANIZATION

1... CREATE AN I.E.P.
The Create an I.E.P. function allows the user to develop an Individual Education Plan on a student/students. From this menu, the user may select specific objectives to include in the students I.E.P., define the Criteria for Mastery and Evaluation Techniques, and enter the student's name, date, grade, and provider.

2... PRINT I.E.P. OBJECTIVES
The Print I.E.P. Objectives function enables the user to list on the screen or print a hard copy of all vocational objectives in a specific vocational area.

3... CHANGE I.E.P. DATA DISK
The Change I.E.P. Data Disk function is used when the user wishes to change a Vocational Data Disk. For example, if you wish to change from a FOOD SERVICE Data Disk to a METALS Data Disk you use this option to load your METALS objectives into the program. This option also allows the user to load a Vocational Data Disk into the program if this was not done when the Program Disk was loaded.

4... PRINT STUDENT I.E.P.
The Print Student I.E.P. function permits the user to print or list a student's Individual Education Plan.

5... GET/SAVE/ERASE I.E.P. FROM DISK
The Get/Save/Erase I.E.P. From Disk function allows the user to save up to 40 student I.E.P.'s on a disk. Additional student I.E.P.'s can be saved by simply creating a new Student Disk (see function 8). This feature also permits the user to erase any student/students from the Student Disk.

6... ERASE I.E.P. FROM MEMORY
The Erase I.E.P. From Memory function enables the user to remove the current student I.E.P. from memory.

7... ADD/EDIT I.E.P. OBJECTIVES
The Add/Edit I.E.P. Objectives function permits the user to add objectives to the current data base of objectives, to delete objectives and to modify objectives. New objectives may be inserted anywhere in the existing list so the user may arrange the objectives in any order desired.

8... CREATE A STUDENT DISK
The Create A Student Disk function enables the user to create as many Student Disks as they require. Each Student Disk will save up to 40 student I.E.P.'s.

9... QUIT
The Quit function allows the user to exit the program entirely.

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OPERATION

A. Place disk labeled "Program Disk" in Drive 1 and place a Data Disk labeled with the vocational area you wish to utilize in Drive 2. See Appendix II if you only have one disk drive.

B. Turn computer on. After a copyright notice appears on the screen your next screen will read:

```
MAIN MENU

1....CREATE IEP
2....PRINT IEP OBJECTIVES
3....CHANGE IEP DATA DISK
4....PRINT STUDENT IEP
5....GET/SAVE/ERASE IEP FROM DISK
6....ERASE IEP FROM MEMORY
7....ADD/EDIT IEP OBJECTIVES
8....CREATE A STUDENT DISK
9....QUIT
```

Simply type the number beside the option you wish to utilize. Then press <return>. Always press <esc> to go back to a previous menu or field of entry.

I. CREATE IEP

A. Type <1> and press <return> if you wish to create an IEP on a student [If you did not place a data disk in Drive 2 before you turned computer on, do so now, then reboot your computer - press <control-open apple-reset> at the same time]. Your next screen will read:

```
# Objectives in (Vocational Area)

Student_
```

B. Type in Students Name then press<return>
C. Type in Date then press <return>
D. Type in Grade then press <return>
E. Type in Provider then press <return>
(Remember always press <esc> to go back to a previous field and/or menu)

Your next screen will read:

```
1..INSERT OBJ 2..EDIT CRITERIA 3..DESELECT OBJ 4..VIEW OBJ <1-4)_

------------------THE FOLLOWING OBJECTIVES HAVE BEEN SELECTED-----------------
```

F. To INSERT AN OBJECTIVE press <1> then press <return>. The computer will ask you to:

```
[Enter Objective No._].
```

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Type the number of the objective you wish to use then press <return>. (If you wish to view list of objectives press <esc> then press <4> and <return> or see list of objectives in Appendix I.

1.(a) After you have typed the number of the objective you wish to use the computer will read:

<OPEN APPLE D> to delete everything to the right of the cursor
Method of Evaluation_

If you typed <1> the computer will tell you that the first objective you have selected is 1..001. If you selected objective two for your first IEP objective the computer will read 1..002. You may enter the objectives in any order that you wish. The first number to the left always tells you the number in order as you selected them. The numbers to the right always tell you the specific objective that you have selected from your program's bank of objectives.

(b) As you enter each objective number you may enter the Method of Evaluation and the Criteria for Mastery where indicated. Press <return> after each entry.

(c) You may continue to enter as many objectives as you require up to a maximum of 40. You may maintain the same Criteria for Evaluation and Mastery by simply pressing <return> when the cursor flashes in that field.

2. To EDIT CRITERIA make sure your cursor is flashing on:

<1-4)_

[Always press <esc> to back up and <return> to advance].

a) Type <2> and press <return>. The computer will ask you to:

'Enter The Number Of The Objective To Edit Criteria (1-)_'.

b) Type the number you wish to edit then press <return>. Press <Open Apple> <D> at the same time to delete everything to the right of the cursor. Now type in your new Evaluation and Mastery Criteria then press <return>. Continue to edit as much criteria as you wish.

3. To DESELECT OBJECTIVES make sure your cursor is flashing on <1-4)_. (Always use <esc> key to go back a field).

a) Type <3> then press <return>.

b) The computer will ask you to:

'Enter No. Obj. to Deselect (1-)_'.

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c) Type the number you wish to deselect then press <return>. The program will delete this objective from the current student's I.E.P.

d) This function allows you to create new I.E.P.'s on students by simply editing your previous entries.

4. To VIEW OBJECTIVES press <4> then <return>.

   a) Then type the number of the objective you wish to see and press <return>.

   b) The computer will list the objective at the bottom of screen.

   c) If you wish to view another objective simply type in the new number and the objective will list at the bottom of screen.

   d) Press <esc> to leave the VIEW OBJECTIVES function.

5. To exit back to main menu press <esc> until the main menu appears on screen.

6. To enter a new student in the same vocational area, print and/or save the current student IEP (See Lines IV and V) then press <1> then <return> in main menu.

   Use your delete key to erase name, enter new student's name, and then continue as indicated in Line I A of outline.

II. PRINT IEP OBJECTIVES

A. Type <2> and press <return> in the main menu to PRINT I.E.P. OBJECTIVES. Your next screen will read:

```
PRINT IEP OBJECTIVES

1....PRINT IEP OBJECTIVES

2....LIST IEP OBJECTIVES

<ESC>...MAIN MENU_
```

B. Type <1> then press <return> to print objectives.
   OR
C. Type <2> then press <return> to list objectives.
Your next screen will read:

```
        # OBJECTIVES IN (VOCATIONAL AREA)

FIX YOUR PRINTER

<CTRL S> TO STOP AND START LISTING OR PRINTING
<ESC> TO EXIT PRINTING OR LISTING

STARTING WITH 1_
```

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D. If you wish to start printing or listing with objective 1 press <return>.

E. If you wish to start with a different number press the delete key, type in desired number, then press <return>.

F. The computer will then ask you with which number you wish to end. Press <return> to print or list all objectives. If you do not wish to print or list all objectives press the delete key, type desired ending number then press <return>.

G. The computer will then ask if you are using single or continuous feed paper.

1) Press <return> for continuous.
2) Press <delete>, type <S>, then press <return> for single sheet feed.

H. Press <Control> and <S> at the same time to stop and start listing or printing.

I. Press <esc> to exit printing or listing and return to main menu. To return to the main menu the program must be in the start mode.

III. CHANGE IEP DATA DISK

A. Press <3> then press <return) in the main menu to change an IEP Data Disk. For example, if you wish to change a HEALTH OCCUPATIONS Data Disk to a FOOD SERVICE Data Disk you will have to press <3> in the main menu.

B. The next screen will read:

ANY UNSAVED IEP WILL BE LOST. CONTINUE? (Y/N)

(If you wish to save the current student's IEP data go to 5 in the main menu and line V in manual.)

C. Press <Y> and <Return>.
Your next screen will read:

PUT THE NEW IEP DISK IN A DRIVE

<RETURN> TO CONTINUE <ESC> TO EXIT_

D. Take your current IEP Data Disk out of drive and replace with new IEP Data Disk.

E. Press <return>.

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IV. PRINT STUDENT IEP

A. Press <4> then press <return> in the main menu to print or list a student IEP. Your next screen will read:

```
1...PRINT TO SCREEN        Y or N
2...CHARACTERS PER INCH OF YOUR PRINTER  10 or 12
3...CONTINUOUS PAPER       N or Y
4...FIRST OBJECTIVE IS A HEADING   Y or N

ALIGN PRINT HEAD WITH PAGE ON THE FORM
<CTRL S> TO STOP AND START LISTING OR PRINTING
<ESC> TO EXIT PRINTING OR LISTING

<1-4> OR <RETURN> TO PRINT OR <ESC> TO EXIT_
```

B. Press <1> then press <return> to print to screen or to printer.

N= Printer
Y= Screen

C. Press <2> then press <return> to set the characters per inch to match your printer. (Check your printer to see if it prints 10 or 12 characters per inch). If the objectives do not fit correctly in the form, reset the characters per inch to either 10 or 12 in the program.

D. Press <3> then press <return> to change from continuous paper feed to single sheet feed.
Y= Continuous paper feed
N= Single sheet feed - Use single sheet feed for printed forms.

E. Press <4> then press <return> to tell program if the first objective is a heading.
Y= First objective is a heading
N= First objective is not a heading

(A heading would be a general statement about how and when objectives will be accomplished. A heading may be entered as your first objective in the Creating An IEP in the main menu). (See Line VII, B. 6. in outline for creating a header).

F. Align print head with first line (Page) on form. Turn printer on.

G. Press <Return> to Print

H. Press <esc> to go back to main menu.

I. Press <Control and S> at the same time to stop and start listing or printing.

J. Press <esc> to exit back to main menu when printing or listing.

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V. GET/SAVE/ERASE IEP FROM DISK

A. Type <5> then press <return> to Get/Save/Erase an IEP from a Student Disk. Make sure you have a Student Disk in one drive and the appropriate IEP Data Disk in another.
Your next screen will read:

```
                    GET/SAVE/ERASE MENU

          1...GET STUDENT IEP FROM DISK
          2...SAVE STUDENT IEP TO DISK
          3...ERASE STUDENT IEP FROM DISK
          4...ERASE ALL STUDENT IEP'S FROM DISK

          <ESC>....MAIN MENU
```

1. Type <1> then press <return> to get a student IEP from disk. You must save a student before you can get a student.
Your next screen will read:

```
1... xxxxxxnamexxxxxx    21... xxxxxemptyxxxxxx
2... xxxxxxnamexxxxxx    22... xxxxxemptyxxxxxx
3... xxxxxxemptyxxxxxx   23... xxxxxemptyxxxxxx
(etc)
20.. xxxxxxemptyxxxxxx    40... xxxxxemptyxxxxxx
```

2. Type the number beside the student whose IEP you wish to get then press <return>. The program will return to the main menu and you may Add/Edit/Erase, List or Print the student's IEP.

3. Press <2> then press <return> to save the student IEP to the student disk.
Your next screen will read:

```
1...xxxxxxxemptyxxxxxx    21...xxxxxemptyxxxxxx
2...xxxxxxxemptyxxxxxx    22...xxxxxemptyxxxxxx
(etc.)
```

4. Press the number beside the space in which you wish to include the student then press <return>. The program will save the student and return you to the main menu.

5. Press <3> then press <return> to erase a student IEP from the student disk. Type the number beside the student you wish to erase then press <return>.
Your next screen will read:

```
ERASE STUDENT (NAME) ENTER <Y> TO CONFIRM OR <ESC> TO EXIT
```

6. <ESC> takes you back to the previous menu without erasing student.

7. Press <Y> and <Return> to erase student. The program will erase student and return you to the main menu.

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8. Press <4> then press <return> to erase all student IEP's from disk.
   Your next screen will read:

```
ARE YOU SURE YOU WANT TO ERASE ALL IEP'S
ENTER <YES> TO CONFIRM OR <ESC> TO EXIT_
```

9. Type <Yes> then press <Return> to erase all IEP's
   OR
10. Press <esc> to return to previous menu.

VI. ERASE IEP FROM MEMORY

A. Press <6> then <return> in the main menu to erase an IEP from memory.
   Your next screen will read:

```
ERASE IEP FROM MEMORY (Y/N)_
```

1. Press <Y> and <Return> to erase IEP.

2. Type <N> and <Return> to exit back to main menu.

VII. ADD/EDIT IEP OBJECTIVES

A. Press <7> then press <return> in main menu to add/edit objectives. Make sure the IEP Data Disk with the objectives you wish to add/edit has been loaded into memory. Your next screen will read:

```
ANY UNSAVED IEP WILL BE LOST. CONTINUE? (Y/N)
```

B. Press <Y> and <return> to continue. If you have a Student's IEP in memory it will be erased. Your next screen will read:

```
MAIN MENU

1...EDIT/ADD OBJECTIVES
2...RETURN TO MAIN PROGRAM
3...CREATE AN IEP DATA DISK
4...CHANGE IEP DATA DISK
5...QUIT
```

1. Press <1> and <return> to edit/add objectives. Your next screen will read:

```
1...ADD OBJECTIVES
2...EDIT OBJECTIVES
3...DELETE OBJECTIVES
<ESC> MAIN MENU
```

a) TO ADD OBJECTIVES press <1> and <return>. Your next screen will read:

```
(#) OBJECTIVES IN (VOCATIONAL AREA)
ADD AFTER WHICH OBJECTIVE NO.?
```

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(1) Type in the number after which you wish your new objective to appear (you may enter a new objective anywhere in the listing of objectives). Then press <return>. Your next screen will read:

```
<DELETE>            Remove a character
<Open Apple D>      Delete all characters to the right of the cursor
<RIGHT ARROW>       Moves cursor one character right
<LEFT ARROW>        Moves cursor one character left
<Open Apple B>      Moves cursor to beginning of text
<Open Apple M>      Moves cursor to middle of text
<Open Apple E>      Moves cursor to end of text
<RETURN>            Accepts text
<ESC>               Returns to previous menu without accepting text
 DO NOT format text with spaces or returns at the end of lines

(#)  OBJECTIVES IN (VOCATIONAL AREA)
ADD AFTER WHICH OBJECTIVE?
(#)
TYPE YOUR OBJECTIVE.
```

(2) Type in your new objectives following the help prompts on the screen.

(3) Always press <return> and <esc> to main menu after entering all new objectives to save information. If you do not return to main menu your new objective/objectives will not be saved.

(4) If you enter a new objective and then delete the same objective the program will maintain the deleted field as a numbered objective even though it contains no objective.

b) To edit objectives press <2> and <return>. Your next screen will read:

```
(#)  OBJECTIVES IN (VOCATIONAL AREA)
ENTER OBJECTIVE NO. TO EDIT
```

(1) Type in the objective number you wish to edit and press <return>. Your next screen will read:

```
<DELETE>            Remove a character
<Open Apple D>      Delete all characters to the right of the cursor
<RIGHT ARROW>       Moves cursor one character right
<LEFT ARROW>        Moves cursor one character left
<Open Apple B>      Moves cursor to beginning of text
<Open Apple M>      Moves cursor to middle of text
<Open Apple E>      Moves cursor to end of text
<RETURN>            Accepts text
<ESC>               Returns to previous menu without accepting text
 DO NOT format text with spaces or returns at the end of lines
(#)  OBJECTIVES IN VOCATIONAL AREA
ENTER OBJECTIVE NO.TO EDIT
(#)
(DESCRIPTION OF OBJECTIVE)

(DESCRIPTION OF OBJECTIVE)_
```

(2) Follow instructions on screen to enter changes.

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(3) Always press <return> and <esc> to main program after entering all objectives to save new data.

(4) You can not edit a field that is numbered but contains no objective.

c). To delete objectives press <3> and <return>. Your next screen will read:

```
1...VIEW OBJECTIVE BEFORE DELETING
2...DELETE A RANGE OF OBJECTIVES
<ESC> EDIT/ADD MENU
```

(1) To select individual objectives to delete press <1> and <return>. Your next screen will read:

```
(#) OBJECTIVES IN (VOCATIONAL AREA)

ENTER OBJECTIVE NO. TO DELETE
___
```

(a) Type in the number of the objective you wish to delete and press <return>. Your next screen will read:

```
(#) OBJECTIVES IN (VOCATIONAL AREA)

ENTER OBJECTIVE NO. TO DELETE
(#)
(DESCRIPTION OF OBJECTIVE)

DELETE (Y/N)
```

(b) Press <Y> and <Return> to delete
(c) Press <N> and <Return> to exit

(2) To delete a range of objectives press <2> and <return>. Your next screen will read:

```
(#) OBJECTIVES IN (VOCATIONAL AREA)

START DELETING WITH WHAT OBJECTIVE NO.?
___
```

(a) Type in the objective number with which you wish to start and press <return>. Your next screen will read:

```
END DELETING WITH WHAT OBJECTIVE NO.?
___
```

(b) Type in the objective number with which you wish to end the deleting and press <return>. Your next screen will read:

```
DELETE THIS RANGE (Y/N)_
```

(c) Press <Y> and <Return> to delete the objectives.

(d) Press <N> and <Return> to exit

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2. When finished with Add/Edit IEP Objectives main menu, press <2> and <return> to exit to main program menu.

3. To create an IEP Data Disk press <3> and <return>. Your next screen will read:

PUT A PRODOS FORMATTED DISK NAMED DATA IN A DRIVE <ESC TO EXIT>

(See appendix III for formatting a disk)

ENTER SUBJECT AREA NAME_____

a) Type in the subject area and press <return>. Your next screen will read:

CREATE ANOTHER IEP DATA DISK (Y/N)?

b) Press <Y> and <Return> to enter another IEP Data Disk (place a new formatted disk in any drive)

c) Press <N> and <Return> to return to main menu.

4. To change IEP Data Disk press <4> and <return>. Your next screen will read:

PUT THE IEP DATA DISK YOU WISH TO USE IN A DRIVE.

PRESS <RETURN> TO CONTINUE. <ESC> TO EXIT.

5. To quit the program altogether press <5> and <return>.

6. To create a header go to Line VII and follow directions for adding objectives. You may insert your header after any objective number you desire. After saving your header (it will simply be saved as another objective) go to the Create An IEP function Line I. F. and insert your header as your first objective number. When you print your IEP the header will print out before your first objective.

VIII. CREATE A STUDENT DISK

A. Press <8> and <return> to create a Student Disk. Your next screen will read:

PLACE A PRODOS FORMATTED DISK NAMED STUDENT IN YOUR DRIVE

<ESC> TO EXIT <RETURN> TO CONTINUE

(See appendix III for formatting a disk)

1. Place the formatted disk named Student in a drive and press <return>. The program will create a Student Disk with fields for 40 names and return you to the main menu.

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IX. QUIT

A. Press <9> and <return> to Quit program. Always quit program when you have finished entering/editing data to insure that all information has been saved.
Your next screen will read:

ANY UNSAVED IEP WILL BE LOST. CONTINUE (Y/N)?

B. Press <Y> and <return> to Quit
(You will always lose your Student IEP if you do not first save it to the Student Disk).

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APPENDIX I

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AGRICULTURE

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AUTO BODY

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1...Describe the structural soundness which is built into the body and frame of vehicles.

2...Name the parts of a vehicle and describe their functions.

3...Remove, replace and align front or rear door.

4...Remove and replace grills and gravel deflectors.

5...Remove and replace a door lock assembly.

6...Remove and replace moldings so that they are aligned properly and fastened tightly.

7...Remove and replace weatherstrip.

8...Remove and replace interior trim.

9...Remove and replace door trim panel.

10..Remove, replace and adjust headlamps with or without the aid of headlight adjusting equipment.

11..Remove and replace a headliner.

12..Remove and replace both standard and energy-absorbing front bumpers.

13..Remove and replace hood and deck lids.

14..Remove and replace front fenders and wheel housing units.

15..Repair and replace a leaking fuel tank.

16..Remove and replace quarter panels and panel extensions.

17..Remove and replace bolt-in radiator supports.

18..Remove and replace door skin.

19..Remove a complete front end assembly.

20..Remove window with adhesive sealent and replace it.

21..Remove and replace a windshield.

22..Remove and replace a door glass regulator.

23..Remove and install glass.

24..Remove and replace a power window motor and power lock solenoid.

25..Identify various welding processes, welding terms and types of welding.

26..Identify the types of cylinders used for gas welding and the gases that go in them.

27..Identify the parts and describe the function of the oxygen and acetylene regulators.

28..Demonstrate the safe uses of torches and tips.

29..Demonstrate how to set up the equipment and light the torch.

30..Form and carry a puddle without a filler rod.

31..Weld an outside corner joint.

32..Manipulate the torch and the rod to make a good bead.

33..Cut straight lines with cutting torch.

34..Pierce and cut holes in steel plates.

35..Weld a butt joint on 16 or 18 gauge steel.

36..Weld a lap joint on 16 or 18 gauge steel.

37..Weld brass beads on light sheet metal.

38..Weld a lap joint on light sheet metal.

39..Demonstrate the ability to correctly select and set up shielded arc welding apparatus to perform jobs of given specifications.

40..Demonstrate safe and proper use of electric arc welding apparatus

41..Demonstrate ability to accurately measure and mark materials within 1/16 inch.

42..Shield arc weld butt joints in the flat, horizontal, vertical and overhead positions using E6010, E6011, E6012, E6013, E6024, E7018 and E7024 electrodes and different gauge metals.

43..Shield arc weld T-joints in the flat position using E6010, E6011, E6013, E7018 and E7024 electrodes.

44..Arc weld lap joints in the flat, horizontal, vertical and overhead positions using E6010, E6011, E6012, E6013 electrodes and different gauge metals.

45..Check alignment in both the separate frame and unitized body.

46..Straighten frames and unitized bodies.

47..Strike an object squarely and use wrist motion.

48..Correct metal damage with hammer and dolly block.

49..Remove paint, smooth metal and find low spots using the Vixen file.

50..Remove a minor dent using a long pick hammer, all-purpose dolly and adjustable file.

51..Remove a minor dent or gouge using a drill motor, pull rods and body file.

52..Fill 1/8" holes or smaller with soldering iron and solder.

53..Repair a hole or rust damage using a fiberglass patch.

54..Remove rusted out area of a panel and replace it with new sheet metal patch.

55..Repair damaged area using lead to fill imperfections.

56..Mix and apply plastic body filler.

57..Repair a tear in a panel.

58..Remove partial panel and weld a patch.

59..Repair broken fiberglass with fiberglass repair kit.

60..Locate paint code and determine how much and what type of material to order for the repair.

61..Washing and cleaning vehicle, removing old finish and treating bare metal for good bond.

62..Mask a vehicle for spot, panel or overall painting.

63..Adjust gun and air pressures to spray enamel, sealer and primer surfaces and apply to metal.

64..Featheredge all broken areas of finish on a vehicle and apply sealer.

65..Apply primer surfacer and hand sand a vehicle, wet or dry.

66..Spot paint a solid color.

67..Paint a panel with a solid color.

68..Paint a vehicle with alkyld and acrylic enamel.

69..Paint a panel and spot paint a panel with metallic colors.

70..Compound and polish by hand and with a buffer.

71..Clean and maintain paint spray guns.

72..Prepare estimate to repair damages of a wrecked vehicle.

73..Prepare a labor estimate for repair work.

BUSINESS AND OFFICE

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CONSTRUCTION

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1...Demonstrate manipulations of the trowel.

2...Lay brick plumb, level and the line with uniform joints.

3...Build a brick corner which is plumb and level.

4...Cut brick and block by various methods.

5...Demonstrate knowledge of spacing requirements.

6...Layout coursing to sill or cornice height, plumb and level.

7...Lay brick to proper height and level with use of rules.

8...Dimension and scale a working drawing.

9...Identify the names and uses of lines and symbols on a working drawing.

10..On a working drawing, identify different views and their uses.

11..Layout and set batter board.

12..Inspect type of soil to determine type and size of footing.

13..Grade to proper depth and fine grade for proper footings.

14..Set forms for concrete.

15..Layout and install reinforcing rods.

16..Set up and use a transit.

17..Grade stakes and pour concrete footings.

18..Lay an 8" wall with header.

19..Build an 8" L-shaped wall.

20..Construct cavity walls.

21..Lay a block corner in running bond.

22..Lay a block corner with 8" block.

23..Lay a block corner with 6" block.

24..Lay a block corner with 12" block in 1/2 running bond.

25..Lay a block corner out of 8" block.

26..Build an English corner.

27..Lay a Dutch corner.

28..Lay a Flemish bond.

29..Lay an English bond.

30..Mix concrete to regulations and test for acceptability.

31..Finish concrete.

32..Use formulas for estimating concrete.

33..Mix and finish terrazzo.

34..Estimate the amount of masonry needed for a job.

35..Set corner poles for brickwork.

36..Lay a wall using reinforced brick masonry.

37..Make a reinforced lintel for an 8" block wall.

38..Set lintel over opening in masonry wall.

39..Set door frame in masonry wall.

40..Tie door bucks to wall using anchors.

41..Set window frame in masonry wall.

42..Lay solder course.

43..Layout and lay brick sills.

44..Place expansion joint in a masonry wall.

45..Build a set of three tread brick steps.

46..Build glazed tile wall.

47..Lay structural clay tile.

48..Identify procedures for waterproofing walls.

49..Set limestone sills and coping.

50..Identify masonry stains and clean mortar stains from brickwork.

51..Lay brick for rough fireplace and ash pit.

52..Set clean-out door in ash pit wall.

53..Lay firebrick to form firebox.

54..Set ash dump in firebox floor.

55..Assemble and seal damper in place.

56..Place mortar to form wind shelf.

57..Corbel brick to build smoke chamber.

58..Cut and set flue liners over the smoke chamber.

59..Lay brick to top out chimney and spread motar for wash.

60..Cut and place flashing in chimney.

61..Lay brick to build face for fireplace.

62..Build a single flue chimney.

63..Lay brick to build a hearth.

64..Lay out and construct a bar-b-que pit.

65..Install a heatilator.

66..Layout and build a diamond pattern wall.

67..Layout and build a basketweave pattern.

68..Layout and build a herringbone weave bond.

69..Layout and build panel using mitre blocks.

70..Cut and build a jack arch.

71..Build a segmental arch.

72..Build a solder arch.

73..Lay glass blocks.

74..Lay masonry walks and floors.

75..Lay out and build planters.

76..Lay out and build a garden wall.

77..Measure and use measurement devices to measure and layout.

78..Read a scale.

79..Read orthographic drawings.

80..Identify different elevations and secure basic information from a set of elevations.

81..Identify various symbols or notations related to building parts and materials and designate specific components and dimensions of the house from the floor plan.

82..Identify specific structural details from a cross section of a house.

83..Determine various information and dimensions from a plot plan.

84..Build a sawhorse.

85..Layout, saw and install sills, floor joist and joist headers on a house.

86..Cut and install decking as a subfloor in a house.

87..Layout, saw and assemble an exterior frame wall.

88..Layout, saw and frame windows and doors according to rough-in dimensions.

89..Layout, cut and install weatherboard on a house.

90..Layout and frame a stairwell opening according to specifications.

91..Compute layout for and build stairs.

92..Layout, cut and install ceiling joist.

93..Identify the components of a roof, types of rafters, types of roofs and their uses.

94..Layout, cut and erect common rafters as required to build a gable roof.

95..Layout, cut and install a gambrel roof.

96..Layout, cut and install a hip roof.

97..Install 1/2" plywood roof decking and apply felt underlayment to the roof surface.

98..Layout asphalt composition shingles.

99..Frame a roof opening for a chimney.

100.Build a porch cornice on a porch which has been previously rough framed.

101.Build a projected box cornice.

102.Build a closed box cornice.

103.Frame a gable dormer.

104.Flash chimney, roof vents and valleys for asphalt shingles.

105.Layout, cut and install drywall.

106.Use drywall cement to fill nail holes, tape joints and float out the drywall.

107.Layout, cut, align and install wallpaper.

108.Paint an interior wall section using water base or oil base paint

109.Stipple finish a drywall ceiling.

110.Install crown molding in a room.

111.Layout, cut and install interior paneling.

112.Disassemble, install and reassemble a pre-hung door.

113.Install a door lock set.

114.Install a pre-hung window.

115.Trim out the inside of a pre-hung window.

116.Cut and install base molding.

117.Install sliding and folding interior doors.

118.Install insulation.

119.Identify the nature of the work of plumbers.

120.Identify and match threaded pipe and fittings.

121.Demonstrate an ability to measure pipe.

122.Cut and ream pipe.

123.Thread and make up fittings.

124.Identify copper pipe fittings.

125.Layout, cut, ream, flare and flange a piece of copper tubing.

126.Solder copper tubing using sweat joints.

127.Join copper tubing to brass pipe.

128.Join copper tubing to copper pipe.

129.Join copper tubing/pipe to steel pipe.

130.Bend copper tubing using spring type bender.

131.Bend an offset in galvanized pipe.

132.Cut cast iron soil pipe.

133.Caulk a lead joint on cast iron soil pipe in both the vertical and horizontal positions.

134.Identify plastic pipe fittings.

135.Cut and join plastic pipe.

136.Layout and cut all holes needed to install water supply, drainage, waste and vent piping.

137.Select, assemble and install drain, waste and vent piping.

138.Install vent stack roof flashing.

139.Install the cold and hot water supply to fixtures, water closet, bathtub with shower, lavatory and kitchen sink.

140.Install clean-out plug on waste lines.

141.Install a bathtub and shower.

142.Install a water closet.

143.Install a wall hung lavatory.

144.Install a kitchen sink.

145.Install an electric hot water heater.

146.Secure horizontal and vertical pipeline.

147.Install cut off valves on branch line.

148.Install pressure relief valve.

149.Clean and repair pressure regulating valves (spring and diaphragm type).

150.Apply insulation to hot water line.

151.Test water supply system for leaks (hydrostatically).

152.Rough-in water supply line for installation of water heater.

153.Remove material obstructing the flow in a drain line.

154.Dislodge material obstructing the flow in a main drain line.

155.Clear obstruction from clogged water closet.

156.Replace slip-joint washers on lavatory "P"-trap.

157.Perform repairs to shower valves that will eliminate leaks.

158.Repair faucets and compression type valves.

159.Repair ball cock and flush valve.

160.Replace a section of water supply line.

161.Define the theory and nature of electricity.

162.Wire a single 115 volt duplex convenience outlet which conforms to NEC standards.

163.Diagram, identify and wire a circuit with multiple convenience outlets.

164.Wire a switch controlled convenience outlet.

165.Install three-wire branch circuits.

166.Identify code requirements for a small appliance circuit.

167.Design and install split and switched receptacles.

168.Install a circuit with four receptacles and one single pole switch.

169.Install five receptacles on a split circuit.

170.Diagram, identify and wire a circuit with one light controlled by a single pole switch and one hot convenience outlet.

171.Draw, identify and wire a simple lighting circuit with a single pole switch.

172.Diagram, identify and wire a circuit with one single pole switch and two lights.

173.Diagram, identify and wire two three-way switches that control one light.

174.Design, diagram and wire a circuit with two three-way switches which controls two lights.

175.Diagram, identify and wire a circuit with a four-way switch and two three-way switches which controls one and two lights.

176.Wire a circuit with a master switch and two three-way switches which controls two lights.

177.Wire light fixtures.

178.Hang a light fixture.

179.Identify and draw the electrical symbols described in the NEC Handbook.

180.Install electrical symbols into a floor plan and estimate the materials.

181.Identify principles and applications of transformers.

182.Wire a low voltage transformer.

183.Install a push button switch for a doorbell circuit.

184.Install a doorbell circuit with either bells or chimes.

185.Wire special voltage circuits.

186.Wire and connect a 220 volt grounded outlet in the entrance switch box.

187.Wire a 220 volt hot water heater.

188.Wire a range or junction box.

189.Wire baseboard-type wall heaters for both 110 volts and 220 volts

190.Install a 230 volt central heating or cooling circuit and disconnect.

191.Calculate range, heating and total load for a residence.

192.Calculate wire size and voltage drop.

193.Make calculations for three-wire branch circuit.

194.Determine the proper size and type of conduit for an ordinary service entrance.

195.Install an electrical service entrance for single-phase power.

196.Install a circuit breaker box or fuse box.

197.Wire a service switch box.

198.Install a ground fault interruptor.

199.Install a temporary service entrance.

COSMETOLOGY

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1...Orient students to cosmetology work.

2...Develop working relationships with customers and fellow workers.

3...Make a clockwise and a counter-clockwise shaping on the back of a patron's head.

4...Finger wave the hair.

5...Set pin curls to achieve desired style.

6...Roller curl hair using basic roller patterns.

7...Set roller curls to achieve desired style.

8...Curl hair using curling irons.

9...Sanitize and sterilize shop equipment.

10..Identify the functions, characteristics and composition of hair.

11..Shampoo the patron's hair.

12..Perform basic hair sytling.

13..Select and apply the proper conditioner or scalp treatment to patron's hair.

14..Identify parts and functions of the skin and scalp and recognize the disorders.

15..Give a manicure and pedicure to a patron.

16..Set ridge curls and skip waves.

17..Give a basic scissors cut.

18..Give a precision hair cut.

19..Perform advanced hair styling.

20..Determine the porosity of a patron's hair.

21..Section, wrap and process a permanent wave.

22..Process a special purpose permanent wave.

23..Chemically relax the hair.

24..Press overly-curly hair with heat.

25..Apply a temporary hair rinse.

26..Apply semi-permanent hair coloring.

27..Select and apply a permanent hair color to a patron's hair.

28..Administer a predisposition and metallic salts test to a patron's hair.

29..Select an appropriate color for a patron's hair.

30..Lighten virgin hair.

31..Retouch the new growth of prelightened hair.

32..Frost, streak and tip a patron's hair.

33..Create special effects with hair coloring.

34..Detect and correct problems relating to hair coloring.

35..Give a facial to a patron.

36..Arch a patron's eyebrows.

37..Apply facial make-up to a patron.

38..Give a lash and brow color treatment.

39..Clean and style a wig.

40..Recognize the need for and remove superfluous hair.

41..Apply anatomy and physiology concepts.

42..Make use of electricity in cosmetology.

43..Apply basic chemistry concepts in cosmetology.

44..Manage the hair salon.

45..Prepare for the State Board of Cosmetology Examination.

DATA PROCESSING

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1...THE STUDENT WILL DEMONSTRATE THE KNOWLEDGE AND ABILITIES REQUIRED TO:

2...Complete the job application process.

3...Demonstrate desirable work traits

4...Demonstrate an understanding of the importance of the application - related security requirements.

5...Demonstrate a knowledge of the information processing cycle.

6...Analyze the impact of computers on our society.

7...Identify computer languages by name and major purpose.

8...Describe the classifying factors of types of computers.

9...Use computers in industry.

10..Explain alternative careers in information systems.

11..Operate keyboard by touch control.

12..Describe the role of hardware components of a computer system.

13..Demonstrate a knowledge of copyright laws.

14..Describe the organization of auxiliary storage.

15..Recognize the organization and use of internal data structures.

16..Recognize relationships among computer software: operating systems, programming languages and applications.

17..Use numbering systems.

18..Plan, code and test a program using structured techniques.

19..Describe the integral relationship between word processing and data processing in management information systems.

20..Demonstrate an understanding of data communication (teleprocessing) concepts.

21..Describe and illustrate the use of a computer spreadsheet.

22..Use a data base program.

23..Use graphics software for charts, graphs, and other illustrations

24..Use electronic mail.

25..Preview word processing techniques.

26..Design a document using word processing software.

27..Enter and edit text using word processing software.

28..Finish a document using word processing software.

29..Print a document using word processing software.

30..Set up work station.

31..Preview data control functions.

32..Schedule and monitor jobs.

33..Check out and return tapes or disks from tape/disk library.

34..Prepare backup files.

35..Monitor disk usage.

36..Copy data.

37..Preview entering/verifying process.

38..Search tape, disk, or diskette for information.

39..Recognize system or operational errors.

40..Assess/handle errors in source input.

41..Modify records and correct data entry errors.

42..Enter data from source documents.

43..Transmit data.

44..Prepare keyed source document for return to supervisor.

45..Add new records.

46..Recover data after incorrectly removing tape or diskette.

47..Recover data after power failure.

48..Perform emergency shutdown procedures.

49..Terminate operation.

50..Delete job files.

51..Receive data from remote units.

52..Enter data from optical character recognition device (OCR).

53..Identify specific user needs.

54..Design output.

55..Determine input required for program.

56..Develop program algorithm using pseudocode/flowchart.

57..Detail all formulas and calculations.

58..Code application programs using structured techniques.

59..Code application programs using file handling techniques.

60..Develop test data to validate program.

61..Desk check source program for errors.

62..Analyze computer output for accuracy following test run.

63..Debug programs with or without computer aid.

64..Develop a documentation narrative.

65..Prepare operation documentation.

66..Perpare user domumentation.

67..Update documentation for program.

68..Describe alternative operating systems.

69..Demonstrate knowledge of data communications/teleprocessing systems.

70..Describe networking alternatives and arrangements.

71..Install applications software package (in-house).

72..Install applications software package (commercial).

73..Change configuration of already-installed package.

74..Modify source code or programs to alter their performance.

75..Back up and restore software and data.

DCT

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DE/MARKETING

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1...THE STUDENT WILL DEMONSTRATE THE KNOWLEDGE AND ABILITIES REQUIRED TO:

2...Describe the importance of the Marketing and Distributive Education program.

3...Demonstrate the responsibilities and rewards of on-the-job training.

4...Participate in a diamond initiation of members ceremony.

5...Demonstrate a knowledge of pertinent DECA facts, including all organizational levels.

6...Elect chapter officers.

7...Develop a program of work and an operating budget.

8...Demonstrate a knowledge of career opportunities available in Marketing.

9...Describe basic knowledge of economic terms applied to Marketing.

10..Demonstrate a knowledge of how an economic system answers 3 basic questions of production.

11..Explain that private ownership of the means of production is the basis of economic and political freedom.

12..Describe how the market system operates as an independent, price-directed system of exchange which satifies needs and wants.

13..Describe how the functions of marketing and its effect on innovation.

14..Demonstrate the relationship between supply and demand, and price

15..Identify factors which motivate consumers to buy.

16..Classify business organizations based on form of ownership and tasks performed.

17..Make business decisions for efficiecy, profit, and organizational goals.

18..Apply marketing strategies and nonprice competition.

19..Describe government's role in economic environment.

20..Identify the components of sales promotion.

21..Identify roles of personnel involved in sales promotion.

22..Demonstrate an understanding of coordination of sales promotion activities.

23..Relate the role and importance of sales personnel.

24..Develop product fact sheets and product analysis sheets on the features and benefits of goods.

25..Determine sources of prospects and qualify them.

26..Gather and organize preapproach information.

27..Approach a prospect.

28..Determine a customer's needs.

29..Present a sales talk on a product or service.

30..Demonstrate the use of a product or service.

31..Handle a customer's questions/objections.

32..Utilize closing techniques.

33..Employ plus/suggestion techniques.

34..Complete sales forms and closing mechanics.

35..Operate a cash register/terminal and handling money.

36..Develop a plan to follow-up a sale.

37..Demonstrate techniques to handle business losses.

38..Demonstrate an understanding of customer services.

39..Relate the importance of providing customer services.

40..Communicate availability of customer services.

41..Provide selected customer services.

42..Demonstrate positive human relations skills when confronted with problem customers.

43..Demonstrate an understanding of advertising purposes and uses.

44..Compare media characteristics.

45..Demonstrate an awareness of advertising policies and media used by training station or potential training station.

46..Plan an advertising program.

47..Identify psychological concepts that influence advertising.

48..Construct print advertisments.

49..Create electronic advertisments.

50..Explain the role of visual merchandising in marketing.

51..Identify function of display.

52..Apply elements of display design.

53..Identify display by type.

54..Plan visual merchandising.

55..Identify tools/materials equipment needed for visual merchandising.

56..Practice safety procedures in visual merchandising.

57..Prepare merchandise for display.

58..Construct background, signs, mannequins for display.

59..Strip and install a window or interior display.

60..Relate the importance of physical distribution.

61..Unload, check, and move goods.

62..Prepare and place price tickets on merchandise.

63..Store and maintain merchandise.

64..Take inventory and complete stock-keeping reports.

65..Fill orders.

66..Use appropriate materials to properly package materials.

67..Route and load goods for delivery.

68..Select and operate materials handling equipment.

69..Plan for future career.

70..Identify education and training opportunities.

71..Identify sources for future marketing employment.

72..Demonstrate steps to prepare for a new job in marketing.

73..Demonstrate a knowledge of how to advance in the career.

DRAFTING

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1...Follow the school code of conduct and maintain an educational environment conducive to the process of problem solving.

2...Become familiar with safety practices to be enforced at all times while in the drafting class.

3...Keep a work station clean and all tools in good repair.

4...Demonstrate the use of typical drafting tools by successfully completing single-view drawings.

5...Demonstrate the correct use of scales by measuring distances accurately.

6...Select the proper degrees of lead to correctly develop line techniques including coding and width.

7...Construct nine lines and show width and character of each line.

8...Prepare single-view drawings using construction lines, object lines, and hidden lines.

9...Draw guidelines using the letterin guide.

10..Layout borders and various title blocks; calculate placement for various paper sizes; and keep an up-to-date drawing log.

11..Prepare a drawing at a bar graph.

12..Using statistical information, construct an accurate line graph to show comparison.

13..Bisect a line, arc and an angle.

14..Divide a line into equal parts.

15..Construct triangles and transfer angles.

16..Construct various polygons.

17..Draw arcs and lines tangent to other arcs and lines.

18..Construct ellipse using at least three different methods.

19..Develop single-view drawings.

20..Operate the print machine.

21..Demonstrate the proper techniques of technical sketching.

22..Identify and describe the six views of an object.

23..Prepare drawings using orthographic projection that require more than two views to describe an object.

24..Demonstrate the technique of dimensioning.

25..Demonstrate placement of size and location dimension on drawings.

26..Determine the degree of precision a part must have to function properly.

27..Demonstrate the use of the cutting-plane line and section lining to show interior details.

28..Draw a full section of an object.

29..Section a symmetrical object by cutting halfway through the object to show interior detail.

30..Draw an object in which hidden details can be shown by a broken-out section.

31..Show the cross section of an object using a revolved section.

32..Draw removed sections of regular views.

33..Demonstrate proper care and use of the technical pen.

34..Prepare drawings using the technical pen.

35..Trace drawings on vellum and film using the technical pen.

36..Identify the purpose of primary and secondary auxiliary views and the reference line.

37..Construct primary auxiliary views.

38..Construct secondary auxiliary views.

39..Define parallel and radial line developments.

40..Prepare the development for a rectangular prism with an inclined bevel along a stretch-out line.

41..Develop a cylinder with an inclined bevel along a stretch-out line parallel to the right section of the cylinder.

42..Develop a right pyramid using radial line development.

43..Develop the stretch out of cones using radial line development.

44..Develop a square to a round transition piece.

45..Prepare isometric drawings by selecting the appropriate methods of projections.

46..Construct diametric and trimetric sketches.

47..Prepare oblique representations.

48..Define and discuss terminology used in perspective drawings.

49..Construct a one-point parallel perspective drawing.

50..Construct a two-point perspective drawing.

51..Become familiar with thread terminology and identify common fasteners.

52..Locate and describe various fasteners.

53..Draw threads using the three ANSI types of thread representations

54..Draw schematic thread representations.

55..Draw basic fasteners.

56..Prepare general assembly drawings using sectioning where necessary to better describe the object.

57..Preparing a working drawing assembly that can serve as a detail drawing and an assembly.

58..Prepare an exploded pictorial assembly drawing.

59..Prepare welded assembly drawings including welding processes and specifications.

60..Prepare a check assembly drawing.

61..Become familiar with architectural styles and building methods.

62..Identify three basic zones of a house and the function of each.

63..Sketch a kitchen layout.

64..Plan two baths that will be functional and attractive with back to back plumbing.

65..Plan and arrange rooms for a home to fit specific needs by sketching a one-line drawing.

66..Draw a 1/4" = 1'-0" floor plan showing walls, doors and windows.

67..Dimension a floor plan.

68..Draw the electrical plan.

69..Prepare a door and window schedule.

70..Draw a foundation plan from a floor plan drawing including piers, girders and joists. (Scale 1/4"=1'-0")

71..Dimension the foundation plan.

72..Draw a foundation detail of a typical wall section and identify the structural parts. (Scale 3/4"=1'-0")

73..Draw front, rear, left and right elevation views.

74..Draw four different roof types that may be used in construction.

75..Draw property lines and features of the plot.

76..Locate the house on the plot plan.

77..Draw and identify vegetation to complete the plot plan.

78..Properly clean and maintain working station and storage area.

79..Laying out a sheet and techniques of pencil drawing.

80..Maintain a file of drawings and prints.

81..Reproduce clear, accurate prints and bind them when necessary.

82..Correctly and neatly trace drawings with pencil.

83..Ink drawings using inking pens, technical pens or other inking instruments.

84..Prepare graphs from a sketch, picture or from information given in numerical form.

85..Construct a chart which gives information in a clear and easy to understand manner.

86..Prepare letter presentation and drawings.

87..Prepare single-view detail drawings.

88..Prepare sketches showing all visible and hidden features.

89..Prepare acceptable multiview drawings.

90..Prepare acceptable multiview drawings.

91..Using a sketch, actual object or picture, prepare a full sectional view.

92..Prepare a multiview detail drawing with a half-section.

93..Prepare an acceptable multiview detail drawing with a revolved or removed section view.

94..Prepare an acceptable multiview detail drawing with an offset or aligned section view.

95..Prepare an isometric drawing.

96..Prepare an acceptable pictorial freehand sketch of an object.

97..Prepare a technical illustration suitable for publication.

98..Prepare a set of working drawings to include detail drawings, assembly drawings, exploded assembly drawings.

99..Prepare multiview detail sketches/drawings that include a primary auxiliary view.

100.Prepare a multiview detail drawing with auxiliary views showing shape and size of oblique or inclined surfaces.

101.Calculate bearings and plot a traverse to scale.

102.Draw a plat from surveyor's field notes.

103.Plot profile and cross-section, meeting Georgia property survey standards.

104.Plot a problem to scale, giving area and other missing data.

105.Calculate elevations along the curve by direct method and by stage method and construct the curve.

106.Geometrically calculate the radius and length of a circular curve and deflection angles to actually sketch the curve.

107.Plot a plan and profile on federal aid paper.

108.Draw a contour map, make profile views and determine amounts of cut and fill.

109.Preparing a basic structural steel framing plan.

110.Prepare an acceptable detail working drawing which includes the drawing and specification of threads and threaded fasteners.

111.Prepare an acceptable detail working drawing including specification of keys, keyways, machine pins, rivets and springs.

112.Prepare acceptable detail working drawings of gear and cam applications.

113.Prepare an acceptable detail working drawing which includes the use of welding symbols and notes.

114.Prepare an acceptable development drawing of an object suitable for use in the manufacture of the product.

115.Demonstrate your ability to adapt basic drafting fundamentals and skills to architectural drawing.

116.Given a drawing of a residential floor plan, redraw to specified scale. Include all necessary symbols, dimensions and notes required for construction.

117.Redraw a foundation plan to scale, including all dimensions, notes and other information necessary for construction.

118.Prepare detail drawings to scale, including all notes and dimensions necessary for construction.

119.Redraw the elevations of a house from preliminary drawings, including all dimensions and notes necessary for construction.

120.Redraw a given plot plan to scale including all dimensions, notes and other information necessary for construction.

121.Draw an electrical plan for a residential floor plan, showing all outlets, switches, distribution panel and other electrical features.

122.Prepare a plan view and pictorial drawing of a complete plumbing system for a house.

123.Prepare a climate control plan for the house.

124.Prepare a complete set of working drawings for a single family dwelling.

ELECTRO-MECH TECH

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1...Observe electrical safety precautions.

2...Identify and use hand tools.

3...Understand the nature of matter.

4...Identify sources of electricity.

5...Identify circuit fundamentals.

6...Perform soldering and circuit fabrication.

7...Understand the fundamentals of resistance.

8...Measure voltage with a voltmeter.

9...Measure current with an ammeter.

10..Calculate power in circuits.

11..Identify conductors and insulators.

12..Make calculations using Ohm's Law.

13..Analyze a series circuit.

14..Analyze a parallel circuit.

15..Analyze series-parallel circuits.

16..Apply fundamentals of magnetism.

17..Demonstrate a knowledge of motors.

18..Demonstrate a knowledge of generation.

19..Use alternating current principles.

20..Demonstrate a knowledge of inductance.

21..Determine inductive reactance.

22..Demonstrate a knowledge of capacitance.

23..Compute RC time constants.

24..Calculate capacitive reactance.

25..Analyze RCL series circuits.

26..Analyze RCL parallel circuits.

27..Analyze the PN junction.

28..Analyze special semiconductor diodes.

29..Use the oscilloscope.

30..Analyze rectifiers.

31..Identify and analyze filters.

32..Identify safety precautions when working on hydraulic/pneumatic systems.

33..Define hydraulics and pneumatics.

34..Explain the principles of hydraulics and pneumatics.

35..Identify fluid power symbols.

36..Read hydraulic and pneumatic schematic diagrams.

37..Recognize hydraulic system basic components.

38..Recognize pneumatic system basic components.

39..Perform scientific calculations.

40..Calculate the mechanical advantage of the lever.

41..Use the lever.

42..Calculate the mechanical advantage of the wheel and axle.

43..Use the wheel and axle.

44..Calculate the mechanical advantage of the inclined plane and wedge.

45..Use the wedge.

46..Transmit and calculate force and motion with the screw thread.

47..Use the screw.

48..Calculate the mechanical advantage of the pulley system.

49..Discuss and demonstrate how to get a job.

50..Discuss and demonstrate how to keep a job.

51..Demonstrate a knowledge of the residential wiring occupation.

52..Identify electrical safety terms and practices.

53..Identify and use electrical wiring specialty tools.

54..Use the National Electrical Code manual.

55..Identify conductors, cables and cords.

56..Read blueprints and rules.

57..Identify and draw electrical symbols used in residential wiring.

58..Identify boxes and devices used in electrical wiring.

59..Install load centers.

60..Identify and install overcurrent protection devices.

61..Design and install lighting circuits.

62..Design a circuit and install a three-way switch.

63..Install a 115v appliance outlet.

64..Install a convenience outlet.

65..Installing a split switched receptacle.

66..Install a one-button and a two-button door bell circuit.

67..Install 230v circuits and outlets.

68..Install a temporary service entrance.

69..Install a service entrance.

70..Estimate materials for a given residential wiring installation.

71..Identify career opportunities available in refrigeration.

72..Identify safe working conditions.

73..Demonstrate a knowledge of basic refrigeration concepts.

74..Demonstrate a knowledge of the basic refrigeration cycle.

75..Identify and use refrigeration tools.

76..Tap, thread and replace threads.

77..Identify types of pipe and tube fittings used in refrigeration systems.

78..Perform basic copper tubing operations.

79..Swag, clean, flux and soft solder copper tubing.

80..Silver braze refrigeration piping.

81..Handle, transform, weigh and measure refrigerants.

82..Install and use access valves.

83..Maintain refrigeration manifold gauges.

84..Install and use refrigeration mainfold gauges.

85..Evacuate a refrigeration system.

86..Install refrigeration accessories.

87..Test for leaks.

88..Charge a refrigeration system.

89..Troubleshoot refrigerator compressors.

90..Troubleshoot condensers.

91..Troubleshoot evaporators.

92..Troubleshoot an automatic expansion valve.

93..Troubleshoot capillary tubes.

94..Troubleshoot thermostatic expansion valves.

95..Troubleshoot the refrigeration system.

96..Install a window air conditioning unit.

97..Perform pre-season start-up maintenance on window air conditioning units.

98..Troubleshoot compressor burnout in window air conditioners.

99..Evacuate and charge window air conditioners.

100.Troubleshoot fans and fan motors.

101.Troubleshoot mechanical problems in a window air conditioner refrigeration unit.

102.Troubleshoot a window air conditioner electrical system.

103.Identify and describe the function of refrigeration components.

104.Evacuate and charge domestic refrigerator and freezer systems.

105.Test and replace defective refrigeration cycle components.

106.Troubleshoot refrigerator/freezer compressor burnout.

107.Test and repair/replace refrigerator/freezer fans and fan motors.

108.Diagnose problems in refrigerators and freezers.

109.Develop a troubleshooting plan for a major appliance.

110.Install and wire an electric clothes dryer.

111.Troubleshoot and service electric clothes dryer mechanical/electrical systems.

112.Install, plumb and wire a clothes washer.

113.Troubleshoot the water level control and door switches.

114.Troubleshoot and replace the clothes washer timer and solenoids.

115.Troubleshoot and replace the clothes washer motor and relay.

116.Troubleshoot and replace the clothes washer drain pump.

117.Troubleshoot and replace/repair the clothes washer clutch and transmission.

118.Install, wire and plumb an electric water heater.

119.Troubleshoot and replace electric water heater elements.

120.Troubleshoot and replace electric water heater thermostat(s).

121.Install and wire a trash compactor.

122.Troubleshoot a trash compactor.

123.Install and wire a microwave oven.

124.Troubleshoot and repair microwave ovens.

125.Install, wire and plumb a dishwasher.

126.Troubleshoot and replace dishwasher level control and door switches.

127.Troubleshoot and replace the dishwasher timer and solenoids.

128.Troubleshoot and replace the dishwasher motor and relay.

129.Troubleshoot and replace or repair the dishwasher drain pump.

130.Troubleshoot and replace the dishwasher heating element and thermostat.

131.Troubleshoot and replace the dishwasher automatic dispenser.

132.Install and wire an electric range, surface unit or wall oven.

133.Troubleshoot and replace surface unit and oven heating elements.

134.Troubleshoot and replace surface unit and oven temperature control switches and thermostats.

135.Troubleshoot and replace the electric oven timer.

136.Install and wire a cook top and vent.

137.Troubleshoot a ceramic or a conventional cook top.

138.Identify and describe the function of the refrigeration components.

139.Install and wire a refrigerator and/or freezer.

140.Troubleshoot and replace refrigeration components.

141.Evacuate and charge domestic refrigerator and freezer systems.

142.Troubleshoot and replace electrical components of a refrigerator and/or freezer.

143.Install and plumb a gas clothes dryer.

144.Troubleshoot and service gas clothes dryer mechanical/electrical systems.

145.Troubleshoot, replace and adjust dryer gas controls.

146.Install and plumb a gas water heater.

147.Troubleshoot and replace gas water heater relief valves.

148.Troubleshoot, replace and adjust water heater gas controls.

149.Troubleshoot and replace gas water heater thermostat.

150.Install and plumb a gas range or a wall oven and surface unit.

151.Troubleshoot and replace gas range controls.

152.Troubleshoot and repair gas oven controls.

153.Troubleshoot and replace gas/electric controls.

154.Troubleshoot gas lines and connections for leaks.

155.Install a gas orifice.

156.Adjust pilot light.

157.Adjust the gas burner.

158.Identify hazardous wiring locations.

159.Locate service entrance equipment and write specifications.

160.Calculate and select service conduits.

161.Install service conduits.

162.Install outlet, junction box and conduit.

163.Install conduit under a concrete slab.

164.Calculate branch conductors and overcurrent protection.

165.Determine sizes and types of feeders and overcurrent protection devices.

166.Select and install a 480v208-210 three phase four wire service entrance.

167.Install branch circuits and controls for air conditioning and heating.

168.Install branch circuits and controls for lighting.

169.Calculate the 120 and 277 volt lighting load.

170.Select and install a 277 volt fluorescent light.

171.Hook up a three phase booster transformer.

172.Make calculations for electric motors, welders and heaters.

173.Identify motor leads.

174.Operate a capacitor start motor.

175.Operate a three phase induction motor.

176.Select reservoirs used in hydraulic systems.

177.Select and install lines, fittings and couplers used in hydraulic/pneumatic systems.

178.Select and install seals used in hydraulic/pneumatic systems.

179.Select and install pumps used on hydraulic systems.

180.Identify and describe the properties of different types of hydraulic fluids.

181.Prevent hydraulic and pneumatic system contamination.

182.Select and install cylinders used in hydraulic/pneumatic systems.

183.Select and install valves on hydraulic/pneumatic systems.

184.Identify basic hydraulic/pneumatic circuits.

185.Select and install compressors used on a pneumatic system.

186.Select and install motors used in hydraulic/pneumatic systems.

187.Select and install accessories used on a pneumatic system.

188.Select and install accessories on a hydraulic system.

189.Plan the maintenance of a hydraulic system.

190.Plan the maintenance of a pneumatic system.

191.Understand computer arithmetic.

192.Understand microprocessor hardware.

193.Understand the functions of a computer.

194.Use the microcomputer.

195.Analyze microcomputer circuits.

196.Operate programmable controllers.

197.Operate solid state logic motor controls.

198.Understand instrumentation for programmable controllers.

199.Interface microcomputers with peripherals.

200.Use the microcomputer as a controller.

201.Compare robotic systems.

202.Install a robot.

203.Design a work cell.

204.Schedule robot work assignments.

205.Repair and maintain robotic systems.

ELECTRONICS

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1...THE STUDENT WILL DEMONSTRATE THE KNOWLEDGE AND ABILITIES REQUIRED TO:

2...Observe all electrical safety precautions and first aid practices

3...Identify and use hand tools.

4...Identify and use power tools.

5...Solder wires and components to terminals and PC boards.

6...Identify wire types, prepare for soldering and install wiring.

7...Install common types of coaxial cable connectors on transmission line.

8...Perform a visual inspection of electronic equipment.

9...Clean electronic equipment.

10..Lubricate electronic equipment.

11..Inspect and replace power cords and distribution cables.

12..Keep records on maintenance of equipment.

13..Prepare parts list.

14..Demonstrate knowledge of the fundamentals of electrical theory and the use of electric test meters and circuit diagram symbols.

15..Identify the operating controls of the VOM, correctly set up the controls for voltage, current and resistance measurements and read the meter scale.

16..Identify the operating controls on the EVM and set up the controls for voltage current and resistance.

17..Measure current in DC circuits.

18..Measure voltage in DC circuits.

19..Calculate and measure resistance in DC circuits.

20..Make calculations using OHM's Law.

21..Calculate voltage, current and resistance in DC series circuits.

22..Calculate the total voltage, total current and total resistance in DC parallel circuits.

23..Calculate and measure electrical quantities in combination DC circuits.

24..Calculate power in DC circuits.

25..Apply fundamentals of magnetism and electromagnetism.

26..Analyze and modify meter movements.

27..Calculate values in DC network circuits.

28..Calculate capacitance and time constants for RC circuits.

29..Calculate values for a right triangle.

30..Use oscilloscopes.

31..Analyze AC sine waves.

32..Measure AC values for LF circuits.

33..Determine reactance and impedance of capacitor in series and parallel circuits.

34..Use capacitor testers.

35..Calculate and measure electrical values in AC capacitance circuits.

36..Use impedance testers.

37..Measure inductance in series RL circuits.

38..Computing turns, voltage, current and impedance ratios of transformers.

39..Draw phasor diagrams and calculate operating values for series AC circuits.

40..Draw phasor diagram and calculate operating values for parallel AC circuits.

41..Analyze tuned AC circuits.

42..Analyze the functions of semiconductors in electronic equipment and the electrical charcteristics of semiconductor materials.

43..Analyze the application and operation of semiconductor diodes.

44..Analyze the application and operation of zener diodes in regulator circuits.

45..Analyze the application and operation of tunnel, varactor and high frequency diodes.

46..Analyze the operation of bipolar transistors.

47..Analyze the operation of field effect transistors.

48..Analyze the operation of thyristors.

49..Analyze the operation of integrated circuits.

50..Analyze the operation of optoelectronic devices.

51..Analyze the operation of diode vaccum tubes.

52..Analyze the operation of triode vaccum tubes.

53..Analyze the operation of tetrode vaccum tubes.

54..Analyze the operation of pentode vaccum tubes.

55..Inspect and replace vaccum tubes.

56..Analyze common-emitter amplifier circuits.

57..Analyze the operation of DC and audio amplifiers.

58..Analyze the operation of differential amplifiers, operational amplifiers, inverting and noninverting amplifiers.

59..Test and determine the amplification gain of an amplifier.

60..Test and repair vacuum tube amplifiers.

61..Test and repair transistor amplifiers.

62..Analyze power supply circuits.

63..Test and repair power supplies.

64..Calibrate power supply voltage.

65..Analyze the operation of oscillators.

66..Test and repair oscillators.

67..Test and repair counter circuits.

68..Analyze pulse circuits.

69..Test and repair nonsinusoidal amplifiers.

70..Analyze amplitude modulator (AM) circuits.

71..Analyze frequency modulator (FM) circuits.

72..Analyze the operation of superheterodyne receivers.

73..Service tape recorders.

74..Service record changers.

75..Inspect and repair loudspeakers.

76..Inspect and repair microphones.

77..Layout, tape up and draw basic printed circuit boards.

78..Construct printed circuit boards.

79..Analyze the stages of a black and white TV receiver.

80..Analyze low voltage power supplies.

81..Troubleshoot switch-mode secondary volyage supplies.

82..Troubleshoot synchronizing and deflection circuits.

83..Troubleshoot horizontal output circuits.

84..Troubleshoot sweep-generator circuits.

85..Troubleshoot high voltage supplies.

86..Align the CRT and associated circuits.

87..Troubleshoot vertical deflection circuits.

88..Adjust the purity, focus and gray scale to produce a normal raster.

89..Analyze the operation of video amplifiers.

90..Troubleshoot video amplifiers.

91..Analyze video IF amplifiers.

92..Align RF and IF amplifiers

93..Analyze the operation of sound IF and AM circuits.

94..Align sound IF and AM circuits.

95..Analyze VHF and UHF tuner circuits.

96..Analyze AFT and remote control circuits.

97..Analyze AGC and noise cancelling circuits.

98..Analyze color television signal reception and decoding.

99..Test picture tubes and their associated circuits.

100.Analyze band-pass amplifiers, color killer circuits and automatic color control circuits.

101.Analyze color sync circuits.

102.Analyze color demodulator and output amplifier circuits.

103.Troubleshoot defective color tuning circuits.

104.Analyze and adjust color convergence circuits.

FOOD SERVICE

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1...Demonstrate prescribed personal hygiene in personal grooming and handwashing practices.

2...Demonstrate a knowledge of the characteristics of microorganisms that cause food-borne diseases and the procedures for eliminating them.

3...Demonstrate a knowledge of common pests which may contaminate foods and the procedures for controlling them.

4...Demonstrate a knowledge of the basic purpose and procedures for cleaning and sanitizing.

5...Follow procedures for proper maintenance, cleaning and sanitation of garbage containers and operate and clean the garbage disposer.

6...Choose the appropriate materials and carry out the proper procedures for washing dishes and any type of food-handling utensil.

7...Demonstrate a knowledge of the materials and procedures for cleaning food preparation areas, serving areas and storage areas.

8...Identify work related hazards and preventive procedures in food service occupations.

9...Demonstrate a knowledge of the correct procedures for preventing and responding to fires.

10..Choose correct first aid supplies and procedures for treating injuries or conditions encountered by food service workers.

11..Identify and use the proper small utensil or cooking tools.

12..Select, use and care for knives.

13..Operate and clean food cutting equipment.

14..Operate and clean food steaming equipment properly and safely.

15..Operate and clean food mixing equipment.

16..Operate and clean various types of surface cooking equipment.

17..Operate and clean deep-fat frying equipment.

18..Operate and clean the two types of toasters properly and safely.

19..Operate and clean the various types of ovens.

20..Use and clean food holding and serving equipment properly and safely.

21..Demonstrate standard and metric weighing and measuring techniques and equivalents.

22..Read and follow standard recipe directions.

23..Adjust standard recipes for greater or fewer number of servings. Convert zero degrees C to zero degrees F.

24..Demonstrate a knowledge of the function, composition and food sources of essential nutrients and the effects of deficiencies of these nutrients.

25..Demonstrate the ability to develop a nutritionally complete diet for persons of varying nutritional needs.

26..Demonstrate a knowledge of the types and characteristics of menus

27..Demonstrate a knowledge of the purpose and characteristics of special nutritional diets.

28..Demonstrate a knowledge of the methods for minimizing nutrient loss during food preparation, cooking and storage.

29..Demonstrate the ability to understand the nutritional information provided by food labels.

30..Demonstrate a knowledge of the functions of the basic ingredients used in baking.

31..Demonstrate a knowledge of the characteristics and use of the leavening agents.

32..Demonstrate a knowledge of the forms, uses and characteristics of fats.

33..Demonstrate a knowledge of the types, functions and characteristics of sugar important in food preparation.

34..Demonstrate a knowledge of the characteristics and uses of eggs in food preparation tasks.

35..Demonstrate a knowledge of the forms, uses and characteristics of milk and milk products.

36..Demonstrate a knowledge of the types and characteristics of starches that are important in preparing foods.

37..Demonstrate a knowledge of the different categories of seasonings and the ways that seasonings are used in preparing different types of foods.

38..Demonstrate a knowledge of types, characteristics and uses of nuts for food preparation tasks.

39..Demonstrate a knowledge of the basic methods of cooking foods in moist heat, dry heat, steam and fat.

40..Prepare basic quick breads that have desired interior and exterior characteristics.

41..Prepare basic yeast breads that have the desired interior and exterior characteristics.

42..Prepare fried and baked sweet dough products that have the desired interior and exterior characteristics.

43..Prepare breakfast breads and quick breads.

44..Prepare and cook crepes and crepe dishes.

45..Prepare cream puffs and eclairs.

46..Prepare a single, double, crumb and pre-baked pie crust.

47..Prepare filling, assemble and bake fruit pies.

48..Prepare non-fruit pie fillings. Assemble, bake and top pies.

49..Mix and bake the basic types of cakes.

50..Prepare the six basic types of icings.

51..Ice and decorate cakes.

52..Prepare and bake the six basic types of cookies.

53..Demonstrate a knowledge of the composition of meats, poultry and seafood and the effects of different methods of heating them.

54..Demonstrate a knowledge of the characteristics and grades of beef, veal, pork and lamb.

55..Identify the various cuts of beef, pork, veal and lamb.

56..Demonstrate a knowledge of the characteristics, grades and classes of poultry; cut-up, de-bone and skin poultry.

57..Demonstrate a knowledge of the types, market forms and grades of fish and shellfish. Prepare fresh fish and shellfish for food preparation tasks.

58..Tenderize meats by grinding, using mechanical tenderizer and applying commercial tenderizer.

59..Follow the proper procedures for roasting and baking meats, poultry and fish.

60..Follow the proper procedures for broiling and pan-broiling meats, poultry and fish.

61..Cook meat, poultry, fish and shellfish using moist heat methods.

62..Cooking meats, poultry, fish and shellfish by sauteing (panfrying) and deep fat frying.

63..Prepare various types of breakfast eggs.

64..Prepare casseroles.

65..Select, clean, prepare and cut up fresh fruits and vegetables.

66..Demonstrate a knowledge of the forms, types and characteristics of vegetables that affect their manner of preparation.

67..Prepare and bake vegetables.

68..Prepare and steam fresh and frozen vegetables.

69..Prepare and boil fresh and frozen vegetables.

70..Cook vegetables by deep-fat frying, sauteing and stir-frying.

71..Prepare and cook dried legumes.

72..Use various cooking methods to prepare fresh, frozen, canned and dehydrated fruits.

73..Prepare various kinds of stocks.

74..Prepare various kinds of soups.

75..Prepare white, brown, tomato and veloute sauces.

76..Prepare Hollandaise and cheese sauces.

77..Prepare dessert sauces.

78..Prepare a cream, brown, natural and convenience gravy.

79..Prepare and cook cereals and pastas.

80..Prepare stuffing.

81..Prepare pudding, custard and souffle desserts.

82..Prepare ice cream desserts.

83..Prepare puff pastries.

84..Prepare various types of salads.

85..Prepare basic types of salad dressings.

86..Prepare the basic types of appetizers.

87..Prepare vegetable, fruit and egg garnishes.

88..Prepare the basic types of sandwiches.

89..Prepare, dispense and serve different kinds of beverages.

90..Demonstrate a knowledge of table service arrangement.

91..Demonstrate a knowledge of the duties of host/hostess, waiter/waitress and busperson.

92..Demonstrate a knowledge of procedures for purchasing, receiving, storing and issuing food and supplies.

93..Demonstrate a knowledge of procedures for directing/supervising personnel and controlling production.

94..Demonstrate a knowledge of principles of merchandising and measures which contribute to good public relations.

95..Demonstrate a thorough knowledge of financial recordkeeping.

GRAPHIC ARTS

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1...Identify and describe shop organization and regulations, lab cleanup procedures and equipment maintenance.

2...Describe the origins of the printing industry.

3...Identify key parts of the five major areas of graphic communications.

4...Identify and describe equipment used in the graphic arts industry

5...Identify the six major printing processes in graphic arts.

6...Identify and describe the steps and procedures used in the production of a printed product.

7...Identify legal restrictions on printing versus freedom of the press.

8...Identify occupations in graphic arts and give a brief job description for each.

9...Identify and describe the knowledge, skills and abilities required for work in layout.

10..Identify and describe examples of work performed in layout.

11..Identify the utility of using basic principles and fundamentals of layout.

12..Identify basic drawing tools and describe their uses in graphic arts.

13..Prepare a layout using correct procedure.

14..Design advertising layouts using the correct procedure.

15..Correctly compute enlargements and reductions for reproduction.

16..Identify and describe careers available in layout and composition for graphics.

17..Identify the tools and equipment used in the production of camera-ready copy.

18..Follow the correct procedure for the preparation of a camera-ready copy.

19..Paste-up a camera ready copy.

20..Prepare line copy for reproduction.

21..Prepare a halftone copy for reproduction.

22..Follow the correct procedure for preparing line and halftone copy for reproduction.

23..Identify preparation procedures for a multi-color copy for reproduction.

24..Demonstrate the ability to use the printer's point system.

25..Identify the various methods of type composition reproduction

26..Determine whether or not a copy, when set in type, will fit in the space available.

27..Recognize hot metal composition and equipment and classify the three different categories of hot metal composition.

28..Identify and describe the various methods of image assembly.

29..Distinguish between "cold" and "hot" methods of composition.

30..Identify, compare and contrast phototypesetting to other methods of composition.

31..Operate a photocomposer.

32..Operate the varityper headliner.

33..Use the correct procedure for accurate proof-reading.

34..Use type as a design material.

35..Identify basic lettering procedures.

36..Use the correct procedure to render lettering ready for photo conversion.

37..Identify and describe the principles and practices of image creation by technical illustration.

38..Design and print a resume.

39..Identify the structure, characteristics of and handling procedures for panchromatic and orthochromatic films.

40..Use a Kodak opposed gray scale (sensitivity scale) to develop a line negative.

41..Predict the effects on processing negatives by changes in exposure time, time of development, temperature and agitation.

42..Demonstrate an understanding of basic principles of line photography.

43..Prepare all tray solutions and setup the processing (dark) room with all trays in proper position.

44..Identify the basic parts of the process camera and explain the function of each.

45..Identify the basic parts of the process camera, correctly name all parts and explain the function of each part.

46..Identify the basic adjustments and movements on a process camera to make a 100% or 1:1 negative.

47..Produce properly exposed negatives using a series of varied F-stops to observe the effects of changing F-stops.

48..Calculate exposure and scale settings to produce a negative to a specified dimension.

49..Demonstrate an understanding of the principle of image inversion and the process of focusing a process camera.

50..Select a negative from a group of randomly good and bad negatives and evaluate its quality. Make recommendatons for improvements if needed.

51..Expose and process a line negative for a small reproduction using the time and temperature development method.

52..Set the process camera to produce a negative of specified size.

53..Make a two-step reduction.

54..Produce a continuous tone photograph.

55..Describe the process used to produce a halftone negative.

56..Determine the density range of a halftone negative. Make a flash exposure to increase the density range.

57..Calibrate various graphic arts exposure computers to determine the main and flash exposure for a selected copy.

58..Produce a halftone negative and make a contact print from the negative.

59..Evaluate a halftone negative in terms of dot size, highlight and shadow areas.

60..Produce a line negative from a mechanical that has both line copy and halftone print.

61..Use advanced halftone photography techniques for special effects.

62..Produce a halftone negative using Autoscreen ortho film.

63..Identify specific terminology basic to image carrier preparation and principles related to its use.

64..Perform the appropriate steps to layout and strip a flat.

65..Strip a flat with a negative or portion thereof which has been screen tinted.

66..Strip a flat with multiple registration.

67..Layout and strip flats for line and halftone combinations.

68..Use step and repeat technique to strip a multi-image flat.

69..Identify the various parts and controls of a flip-top platemaker.

70..Select the proper plate for a printing job considering the cost and quality factors involved.

71..Determine the exposure of and process a presensitized plate.

72..Operate a photo-direct platemaker to produce a plate.

73..Prepare a direct image master.

74..Follow the correct procedure for using screen tints.

75..Identify the different types of plates and processes for which they are used.

76..Identifying the basic methods of printing with plates or masters and explain the differences between the methods.

77..Identify the basic theory of offset printing.

78..Identifying basic principles of offset reproduction using the offset duplicator.

79..Identify the six operating systems of the offset duplicator.

80..Identify the basic parts of the printing unit in an offset duplicator.

81..Identify the parts of the inking system.

82..Identify the component parts of the dampening system.

83..Identify the basic parts of the paper feeding, register and delivery system of the offset duplicator.

84..Operate the offset duplicator to run #to, 8-1/2" x 11" paper.

85..Perform daily clean-up and maintenance checks of the offset duplicator.

86..Perform major clean up of an offset duplicator.

87..Identify and eliminate problems of press copies related to moisture distribution on the offset duplicator.

88..Identify and eliminate problems related to press copy registration on the offset duplicator.

89..Identify and select offset printing inks.

90..Print copies in red ink on #20 white paper.

91..Use a metal plate master on the offset duplicator to run #20 paper.

92..Produce an electrostatic plate.

93..Check roller pressure of the dampening system and make necessary adjustments according to manufacturer's specifications.

94..Diagnose and eliminate problems relating to blanket and blanket cylinder.

95..Adjust the feeding and delivery systems to run 11" x 17" paper.

96..Adjust the feeding and delivery systems to print a 3-1/2" x 5" notecard.

97..Adjust the feeding and delivery systems to run 4" x 9-1/2" legal envelopes.

98..Print both sides of #20 opaque paper.

99..Duplicate copies on 11" x 17" paper with either black or colored ink.

100.Print signatures for a book or pamphlet.

101.Identify manufacturing process in papermaking and finishing.

102.Determine the felt and wire side of paper.

103.Identify paper grades and describe the characteristics of each.

104.Identify paper grain direction and its importance in printing and binding.

105.Identify shrinking and stretching and how these factors affect printing paper.

106.Identify the uses of different types of paper.

107.Diagnose and correct runability and print quality as these factors affect the printing of any paper.

108.Identify the correct procedure for ordering paper.

109.Identify and describe the general bindery methods and operations.

110.Identify and describe examples of work performed in bindery and finishing.

111.Identify and describe the systems approach to building occupational skills in bindery and finishing.

112.Identify and describe the careers available in bindery and finishing.

113.Identify and describe the correct procedures for cutting paper.

114.Follow procedures for cutting size 17" x 22" paper into four 8-1/2" x 11" standard press sheets.

115.Follow procedures for cutting 17" x 22" paper into one of six practical sizes.

116.Follow the procedures for cutting paper 22-1/2" x 28-1/2" into one of eight practical sizes.

117.Follow the procedures for cutting size 25" x 38" paper into one of five practical divisions.

118.Follow correct procedures for gathering, inserting and collating.

119.Adjust and operate the folding machine for various folds.

120.Identify and describe the two types of folders.

121.Identify and describe the six types of folds generally used in printing.

122.Score and slit paper.

123.Follow the correct procedures for drilling paper.

124.Follow the correct procedure for padding and gluing.

125.Follow the correct procedures for stitching and stapling.

126.Follow the correct procedure for mechanical binding.

127.Perform message analysis by analyzing the nine factors that must be considered to produce an effective message.

128.Identify the elements required to specify a printing job.

129.Select an appropriate project and prepare an acceptable film positive for a photographic screen.

130.Identify printing done by the silk screen process.

131.Identify the types of equipment and ink necessary to print using hand screen process printing methods.

132.Identify the types of equipment and racks used for drying jobs in the hand-screen-printing process.

133.Build a silk screen frame that is square and sturdy.

134.Stretch silk tightly on a frame and clean the silk.

135.Prepare a hand cut screen stencil and adhere the stencil to a screen with adhering liquid.

136.Make a photographic screen suitable for running a one-color job.

137.Print a one-color job using a photographic screen.

138.Register and print a poster using one color of ink.

139.Print a one-color hand cut or photographic stencil of not more than ten impressions on a metal or plastic object with flat surfaces.

140.Identify properties of light in terms of tonality and contrast.

141.Identify characteristics of perspective in terms of size, relationships, camera angle and distortion.

142.Identify the basic rules of composition used on a series of photographs.

143.Identify the basic parts of a camera and describe the purpose of each part.

144.Identify basic types of cameras and describe the purpose of each.

145.Use exposure controls on the camera and calculate equivalent exposures.

146.Identify lenses, focus the camera and calculate depth of field.

147.Identify the shutter, choose appropriate shutter speeds and set the camera controls.

148.Maintain cameras and equipment in terms of cleanliness and tightness.

149.Load the film into a 35mm camera and be able to advance the film in preparation for making an exposure.

150.Choose camera accessories necessary to complete an assignment.

151.Identify the characteristics of black and white film in terms of speed, grain and contrast.

152.Determine exposure using manufacturer's recommendations or an exposure meter.

153.Develop a roll of black and white film and evaluate the negative.

154.Identify processes for print making in color and black and white for both contact printing and enlarging.

155.Identify the components of the enlarger and describe the functions of each.

156.Make a print by contact method and enlarging.

157.Make photographs using natural and artificial light sources to reproduce portraits, flatwork and macro photographs.

158.Develop photographs with special effects following procedures for special photographic techniques.

159.Mount and mat a print using a dry-mounting technique.

HEALTH

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1...Provided with instruction and appropriate references, describe selected health occupations and their relation to the hospital team.

2...Provided resource material and necessary equipment, practice the steps of guidelines for patient care. Pre-procedure and post-procedural steps must be completed.

3...Provided a conscious patient and the necessary equipment and supplies assist the patient in maintaining oral hygiene.

4...Provided an unconscious patient and the necessary equipment administer oral hygiene to the patient.

5...Provided a conscious patient with dentures and the necessary supplies assist the patient to maintain oral hygiene.

6...Provided a patient, a bedside commode and the necessary supplies assist the patient to use bedside commode.

7...Provided a bed patient and the necessary equipment assist the patient in using a bedpan.

8...Provided a male patient and the necessary equipment assist the patient to use a urinal.

9...Provided a patient and the necessary supplies administer a back rub.

10..Provided a bed patient and the necessary supplies give a complete bed bath to the patient.

11..Provided a patient, shower facilities and necessary equipment assist a patient to bathe in a shower.

12..Provided a patient and the necessary equipment assist a patient in a tub.

13..Provided an adult bed patient, remove the patient's soiled garments and put on clean ones without causing discomfort to the patient.

14..Provided a male patient who is unable to shave himself and the necessary supplies shave the patient's face without causing injury or discomfort.

15..Provided a bed patient, with the physician's orders, the necessary supplies and equipment shampoo the patient's hair.

16..Provided a patient and the necessary equipment brush or comb the patient's hair.

17..Provided a patient and the necessary equipment, clean and trim the fingernails and toenails of the patient.

18..Given a hospital bed with siderails adjust the bed to the six positions used in patient care and put the siderails in place to provide patient safety.

19..Provided a hospital bed and linens make an unoccupied, surgical and open bed.

20..Provided a patient on complete bedrest and hospital linens make a hospital bed that is occupied.

21..Provided handwashing facilities and the necessary supplies, wash your hands.

22..Provided sterile equipment and supplies, handle the sterile items without contamination.

23..Given a pack of sterile gloves, don them without contamination.

24..Provided an area designated as an isolation unit, physician's orders and necessary equipment, set up an isolation unit for patient occupancy.

25..Provided masks for isolation don and remove a mask in an isolation unit.

26..Provided a gown for isolation purposes don and remove the gown.

27..Provided an isolation setting, the necessary equipment and supplies, double-bag articles being removed from the isolation area.

28..Provided a patient in isolation, a food tray and the necessary supplies serve and remove patient's food tray.

29..Provided a patient in isolation, physician's orders and the necessary equipment, transfer the patient to designated area.

30..Provided a patient and the necessary equipment take the patient's oral, axillary and/or rectal temperature.

31..Provided a patient and the necessary equipment, determine the rate, volume and rhythm of the patient's pulse.

32..Provided a patient and the necessary equipment determine the rate and character of a patient's respiration.

33..Provided a patient and the necessary equipment, take a patient's blood pressure.

34..Provided a bed patient, and physician's orders, assist the patient to dangle and ambulate.

35..Provided a patient and the necessary equipment assist a patient from the bed into the wheelchair.

36..Provided a patient who requires assistance to ambulate, physician's orders and the necessary equipment, help patient to use assistive device.

37..Provided a bed patient, a mechanical lift and a co-worker's assistance, transfer the patient from bed to wheelchair.

38..Provided a bed patient, stretcher, co-workers and the necessary equipment transfer the patient from the bed to stretcher.

39..Provided a dependent patient and the necessary equipment position a patient in bed to prevent disuse and/or misuse injuries.

40..Provided a dependent patient, physician's orders and a co-worker, log-roll the patient to change his/her position.

41..Provided a patient and physician's orders, assist the patient with range of motion exercises.

42..Provided a patient, physician's orders and the necessary equipment, apply anti-embolic stockings.

43..Provided a patient, physician's orders and the necessary equipment place the patient on an alternating pressure mattress.

44..Provided a patient, physician's orders and the necessary equipment apply restraints to the patient.

45..Provided a patient, physician's orders and the necessary equipment, apply a bandage and/or binder to the patient.

46..Provided a patient, physician's orders and the necessary equipment apply a sterile dressing to the designated area.

47..Provided a patient, physician's orders and the necessary equipment irrigate the patient's designated wound.

48..Provided a patient, physician's orders and the necessary equipment administer local cold application.

49..Provided a patient, physician's orders and the necessary equipment, administer a tepid bath.

50..Provided a patient, physician's orders and the necessary equipment, administer local heat applications.

51..Provided a patient, physician's orders and the necessary equipment assist the patient with a sitz bath.

52..Provided mannequins simulating an adult and an infant patient, perform CPR for a witnessed and unwitnessed arrest.

53..Provided a situation simulating a patient with severe external bleeding and the necessary supplies control the external hemorrhage.

54..Provided a patient with a fracture, immobilize the fracture.

55..Provided a simulated emergency situation, carry out evacuation measures.

56..Provided a patient, physician's orders and the necessary equipment, administer oxygen to the patient.

57..Provided a patient and physician's orders assist the patient with breathing exercises.

58..Provided a patient, physician's orders and the necessary equipment, assist a patient with postural drainage.

59..Provided a patient, physician's orders and the necessary equipment suction the patient's upper respiratory tract.

60..Provided a patient with a tracheostomy, physician's orders and the necessary equipment suction the patient's tracheostomy.

61..Provided a patient with a tracheostomy, physicians's orders and the necessary equipment clean and replace the inner cannula.

62..Provided a patient, physician's orders and the necessary equipment, set up a child-adult mist tent.

63..Provided a patient with chest drainage, physician's orders and the necessary equipment assist with water-sealed drainage.

64..Provided a patient, physician's orders and the necessary equipment serve a patient's tray.

65..Provided a patient who cannot feed him/herself and the pescribed diet, feed the patient.

66..Provided a patient who requires gavage feedings, the prescribed formula and the necessary equipment, administer gavage feeding.

67..Provided a patient, physician's orders, laboratory requisition and the necessary equipment, collect a urine specimen from a patient.

68..Provided a patient, physician's orders, a laboratory requisition and the necessary equipment collect a clean-catch urine specimen.

69..Provided a urine specimen, physician's orders and the necessary equipment test the urine for sugar and acetone.

70..Provided a patient, physician's orders and the necessary equipment insert a straight and/or retention urinary catheter.

71..Provided a patient with an indwelling urinary catheter, physician's order and the necessary equipment, irrigate the bladder.

72..Provided a patient with a retention catheter, physician's orders and the necessary equipment, remove the retention catheter.

73..Provided a patient, physician's orders and the necessary equipment, collect a 24-hour urine specimen.

74..Provided a patient, physician's orders and the necessary equipment give the patient an enema.

75..Provided a patient, physician's orders, and the necessary equipment, administer a rectal suppository to the patient.

76..Provided a patient, physician's orders, a laboratory requisition and the necessary equipment collect a stool specimen from a patient.

77..Provided a patient with a fecal impaction, physician's orders and the necessary equipment remove the fecal impaction.

78..Provided a patient who is to have a physical examination and the necessary equipment assist the patient and physician throughout the procedure.

79..Provided a patient, physician's orders and the necessary equipment irrigate the patient's eye(s).

80..Provided a patient, physician's orders and the necessary equipment irrigate the patient's ear.

81..Given a list of the contents needed for a pack or tray, prepare the equipment and supplies and set up the pack or tray for sterilization.

82..Provided a patient, admission forms, agency policy and the necessary equipment, process the patient for admission.

83..Provided a patient, transfer forms, agency policy and the necessary equipment, transfer the patient from one area of the facility to another.

84..Provided a patient, discharge orders, agency policies, discharge forms and the necessary equipment, discharge the patient from the facility.

85..Provided a patient, physician's orders, oral medications and the necessary equipment, set up and administer oral medications.

86..Given a patient, physician's orders, parenteral medications and the necessary equipment administer parenteral medications.

87..Provided a sterile gown, and the necessary equipment don the sterile gown after completing a surgical scrub.

88..Provided the necessary resources describe the members of the surgical team and the operating room.

89..Provided the necessary equipment identify and pass surgical instruments.

90..Provided a patient being prepared for surgery and the necessary equipment drape the patient for the surgical procedure.

91..Provided a patient, physician's orders and the necessary equipment and supplies measure the patient's intake and output.

92..Given a patient receiving an IV infusion, assist the patient with daily activities and regulate the IV flow rate.

93..Given a patient with a fluid imbalance and physician's orders, give the patient the nursing care required to keep the patient safe and comfortable.

94..Given a patient's chart and pertinent information regarding nursing care, observations, tests, treatments, procedures or situations record the information.

95..Given a patient's chart, physician's orders and the necessary equipment, transcribe the orders.

96..Given a patient and his/her mail, gifts or flowers deliver the articles to the patient.

97..Provided a list of services rendered a patient, or equipment and supplies used for patient care fill out a requisition or charge slip for each.

98..Given a telephone, receive a message and relay it to the appropriate person.

99..Provided a hospital or office setting and the necessary supplies inventory the supplies and equipment as required by the agency.

100.Provided a patient census report form, record the total number of patients on the unit, section or facility.

101.Provided a patient's chart, a graphic sheet and a list of TPR and blood reading, record the vital signs.

102.Provided an infant, use the appropriate holds to carry the infant

103.Provided an infant and the necessary equipment, weigh and measure the infant.

104.Provided an infant and the necessary equipment collect a urine specimen.

105.Provided an infant and the necessary equipment give the infant daily care to include: sponge bath, cleansing female genitalia, care of circumcision, cord care, and dressing of the infant.

106.Provided an infant and the prescribed formula feed the infant or assist mother to breast feed infant.

107.Provided a second or third trimester prenatal patient and a fetascope or an ultrasonic transducer, count and report the fetal heart rate.

108.Provided a patient in labor and the necessary equipment, time the patient's contractions.

109.Provided an infant and the necessary equipment and supplies, suction the infant's respiratory passages.

110.Provided a newborn, agency policy and the necessary equipment identify the newborn using bracelets and imprints.

111.Provided a newborn and the necessary supplies, instill a 1% solution of silver nitrate into both eyes and irrigate the eyes according to agency policy.

112.Provided a patient requiring perineal care, physician's orders and the necessary equipment give the patient perineal care.

113.Provided a female patient, physician's orders and the necessary equipment irrigate the vaginal canal or administer vaginal medication

114.Provided the necessary equipment identify, use and clean laboratory glassware safely.

115.Provided a patient, physician's orders and the necessary equipment obtain blood from the patient's vein for laboratory tests.

116.Given a patient, physician's orders and the necessary equipment obtain a sample of capillary blood by performing a capillary puncture

117.Provided a blood sample from a patient, physician's orders and the necessary equipment measure the hemoglobin content of the patient's blood.

118.Provided a patient, physician's orders and the necessary equipment measure the hematocrit of the patient's blood.

119.Provided a urine specimen and the necessary equipment, test urine with dipstick for chemical constitutents and prepare a urine sediment for microscopic examination.

120.Provided a blood sample and the necessary equipment, determine the ABO blood group of the sample.

121.Provided specimens and the necessary equipment streak plates and stain specimens for bacterial identification.

122.Provided blood samples and the necessary equipment, prepare blood smears.

123.Provided a patient who has a newly applied cast, physician's orders and the necessary equipment, provide care to the patient which will prevent complications.

124.Provided a patient, physician's orders and the necessary equipment, apply and/or remove the patient's brace.

125.Provided a patient, physician's orders and the necessary equipment, apply or remove skin traction.

126.Provided a patient, physician's orders, a turning frame and the assistance of a co-worker rotate the patient on the frame.

127.Provided a patient on a Circ-o-lectric bed and physician's orders, change the patient's position by changing the bed position.

128.Provided an expired patient and the necessary equipment, prepare the body for the mortuary.

129.Provided a patient scheduled for surgery and the necessary equipment prepare the operative site.

130.Provided a preoperative patient, physician's orders, the necessary equipment and a preoperative checklist prepare the patient for surgery.

131.Provided a post-operative patient, physician's orders and the necessary equipment give the patient immediate post-operative care.

132.Provided a patient with a colostomy, physician's orders and the necessary equipment change the colostomy dressing.

133.Provided a patient with a colostomy, physician's orders and the necessary equipment irrigate the patient's colostomy.

134.Provided a patient with a naso-gastric tube, physician's orders and the necessary equipment, give care required to keep the tube patent.

135.Provided a hospitalized patient, provide fresh drinking water.

136.Provided a bed patient and a telephone, assist the patient in placing a personal telephone call.

137.Provided a hospitalized patient who has flowers in his/her room, give the flowers the necessary care needed to maintain attractiveness

138.Provided an occupied patient unit and the necessary equipment, clean the unit.

139.Provided a patient unit from which the patient has been discharged, clean the unit.

140.Provided an isolation unit, complete concurrent and/or terminal cleaning.

141.Provided an operating room, delivery room and newborn nursery and the necessary equipment clean the areas.

142.Provided the necessary resources, describe the members of the dental health teamand the educational requirements.

143.Provided the necessary equipment, identify and maintain the basic equipment of a dental unit.

144.Provided a dental patient and the necessary equipment, seat and dismiss the patient.

145.Provided the necessary equipment, prepare an anesthetic syringe for use with a dental patient.

146.Provided a hospitalized patient and the necessary equipment, prepare and serve the patient's diet tray.

147.Provided the necessary resources, describe the duties of a radiologic technologist.

148.Provided the necessary resources, describe the educational requirements for the radiologic technologist.

149.Provided the necessary resources and equipment, identify and explain the use of radiographic equipment.

150.Provided the necessary resources and equipment, describe measures used to assure patient and worker protection when exposed to radiation.

151.Provided a patient, physician's orders and the necessary equipment position the patient for a radiograph.

152.Provided the necessary resources, describe the educational requirements of the physical therapy team and the job functions of each.

HOME ECONOMICS

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1...Identify changes occurring during adolescent development.

2...Analyze effect of physical changes on emotional and social behavior.

3...Utilize criteria for being well groomed.

4...Practice socially acceptable behaviors.

5...Exhibit qualities of "good" citizenship.

6...Relate personality traits to acceptance by others.

7...Examine interaction with peers.

8...Relate values, attitudes, customs, and traditions to dating practices.

9...Seek solutions to teenage concerns.

10..Relate relationship of mental development to other aspects of teenage development.

11..Utilize the decision making process.

12..Explain how emotions affect behavior, personality, and relationships.

13..Analyze ways persons deal with emotions.

14..Relate sexuality to emotional maturity.

15..Describe the sexual development of both males and females.

16..Explain the reproductive system.

17..Make rational decisions about sexual behavior.

18..Examine self as an individual and family member.

19..Relate values and goals to the decision making process.

20..Correlate personal and family values and goals to the development of relationships.

21..Determine barriers to effective communication.

22..Utilize communication skills.

23..Relation of communication to establishing and maintaining relationships.

24..Interpret developmental tasks at various stages of life.

25..Determine changes in role expectations of men and women.

26..Describe intellectual, emotional, social, and physical needs of senior citizens.

27..Analyze specific areas of crises.

28..Utilize resources to help meet crises.

29..Accept consequences of life crises.

30..Compare various lifestyles.

31..Analyze factors contributing to changes in lifestyles.

32..Predict a possible lifestyle.

33..Determine criteria for selecting a partner.

34..Analyze trends in forming personal commitments.

35..Analyze factors which indicate readiness for marriage.

36..Formulate wedding plans.

37..Predict possible adjustments.

38..Utilize methods of resolving differences.

39..Relate sexual behavior to parenthood.

40..Determine pros and cons of contraception.

41..Analyze the physical and emotional effect of abortions.

42..Apply the decision making process to family planning.

43..Utilize available community resources.

44..Accept responsibilities of parenthood.

45..Relate trends to parenting.

46..Assess available community resources.

47..Predict changes in family unit.

48..Alter daily routine and relationships to adjust to changes within the family unit.

49..Recognize the signs of pregnancy.

50..Determine the health and nutritional needs of the expectant mother.

51..Investigate community resources and child care services available to the expectant mother and father.

52..Compare the developmental stages of the baby during pregnancy.

53..Analyze causes of birth defects.

54..Classify the responsibilities of family members during expectant mother's pregnancy.

55..Compare the advantages of breast feeding and bottle feeding.

56..Select layette and equipment for a nursery.

57..Examine community resources relating to birth.

58..Explain the stages of labor.

59..Differentiate between the methods of child birth.

60..Plan for the physical care and adjustments of the new mother.

61..Determine ways to provide for the emotional needs and adjustments of the new mother.

62..Plan for the social adjustments of the new mother and new father.

63..Determine ways to meet the physical needs of the infant.

64..Determine ways to meet the emotional needs of the infant.

65..Determine how to meet the social needs of the infant.

66..Determine ways to meet the intellectual/mental needs of the infant.

67..Analyze the needs of the exceptional infant.

68..Determine ways to meet a toddler's food needs.

69..Plan ways to meet the clothing needs of the toddler.

70..Explore ways to provide a safe and healthy environment.

71..Guide a toddler to develop desirable sleeping habits.

72..Provide toddler's needs for space and furnishings.

73..Promote physical growth through play time activities.

74..Explore ways to meet physical needs of the exceptional child.

75..Examine community resources and agencies that help provide for physical needs and development.

76..Compare the stages of intellectual/mental development during the toddler years.

77..Select educational toys, games, books, and activities.

78..Relate toddler's play to intellectual/mental development.

79..Plan ways to meet the needs of toddlers with special learning problems.

80..Examine community resources and agencies which develop and/or promote a toddler's intellectual/mental development.

81..Assess situations that influence a toddler's social development.

82..Select games and activities that promote social growth.

83..Explore ways of meeting the social needs of the exceptional toddler.

84..Locate community resources.

85..Meet a toddler's basic social needs.

86..Determine the effects of parent-child interaction on the emotional development of toddlers.

87..Analyze ways an adult may express love to a toddler.

88..Explore ways to meet the emotional needs of the exceptional child

89..Locate sources of help which may be obtained for children with emotional problems.

90..Meet the emotional needs of the toddler.

91..Analyze the need for discipline, guidance, and self direction.

92..Select solutions to behavior problems that exist during the toddler years.

93..Describe some guidance techniques appropriate for toddlers.

94..Select appropriate guidance techniques for toddlers.

95..Determine ways to meet a preschooler's food needs.

96..Plan ways to meet the clothing needs of preschoolers.

97..Explore ways to provide a safe and healthy environment.

98..Guide preschoolers to develop desirable sleeping habits.

99..Provide for a preschooler's needs for space and furnishings.

100.Promote physical growth through playtime activities.

101.Explore ways to meet the physical needs of the exceptional child.

102.Examine community resources and agencies that help provide for physical needs and development.

103.Compare stages of the intellectual/mental development during the preschool years.

104.Select educational toys, games, and activities.

105.Evaluate school and reading readiness skills of the preschool child.

106.Plan ways to meet the needs of a preschool child with special learning problems.

107.Examine community resources and agencies which assist families in developing and/or promoting their child's intellectual/mental growth.

108.Analyze a preschooler's needs.

109.Determine ways to build a positive self-concept in preschoolers.

110.Promote social development through the use of games and other activities.

111.Analyze the value of play to preschoolers.

112.Explore ways to meet the social needs of the exceptional child.

113.Locate community resources.

114.Determine the emotional needs of the preschool child.

115.Interpret ways a child may express feelings.

116.Explore ways of helping the exceptional child.

117.Analyze community resources available to children of preschool age.

118.Analyze solutions to behavior problems that exist during the preschool years.

119.Establish guidelines for helping a preschool child master his impulses.

120.Investigate ways to instill a sense of responsibility in children

121.Determine guidance techniques for the preschool child.

122.Determine ways to meet food needs of a school age child.

123.Plan ways to meet the clothing needs of 6-12 year olds.

124.Explore ways to provide a safe and healthy environment.

125.Guide a school-age child to develop desirable sleeping habits.

126.Provide for space and furnishings needed for a school-age child.

127.Provide for physical growth through school and extracurricular activities.

128.Explore ways to meet physical needs of exceptional child.

129.Examine community resources and agencies that help provide for physical needs and development.

130.Compare stages of intellectual/mental development during the school-age years.

131.Examine ways a child's school experience is influenced by the environment.

132.Select educational toys, games, books, and activities.

133.Plan ways to meet the needs of school-age children with special learning problems.

134.Investigate community resources and agencies which develop and/or promote intellectual/mental growth of the school-age child.

135.Promote desirable personality traits in children of various ages.

136.Specify ways to make a child secure in his own culture.

137.Analyze how persons other than parents influence the development of a child's self-concept.

138.Explore ways of meeting needs of children with special problems.

139.Locate community resources.

140.Meet a school-age child's social needs.

141.Specify emotions experienced by the school-age child.

142.Explore ways to meet the emotional needs of the school-age child.

143.Explore ways to meet the emotional needs of exceptional child.

144.Evaluate ways in which community agencies can assist families to cope with emotional problems.

145.Analyze solutions to behavior problems common to the school-age child.

146.Describe how to utilize different guidance techniques for school-age children.

147.Analyze different types of discipline and punishment.

148.Investigate agencies or organizations which provide supportive guidance services for children.

149.Choose food from the basic food groups necessary to meet daily food needs.

150.Determine food needs of individuals in relation to various stages of life cycle, activities, and sex.

151.Analyze individual food preference.

152.Determine nutritive values of snacks.

153.Incorporate use of commercial eating places in food plan.

154.Plan meals according to basic meal patterns.

155.Evaluate food advertisement as to usefulness.

156.Determine what to buy.

157.Determine how much to buy.

158.Choose where to buy.

159.Determine when to buy.

160.Interpret and utilize labeling.

161.Compare forms, quality, and brand names of foods.

162.Make food purchases.

163.Provide for storage space.

164.Store each type of food for convenient usage.

165.Determine when money and time can be saved by home preservation.

166.Utilize methods of preserving available food.

167.Determine factors to consider in planning meals.

168.Organize resources in planning attractive and nutritious meals.

169.Choose kitchen equipment for specific tasks.

170.Assess safety features.

171.Arrange work centers for convenience.

172.Use and care for equipment.

173.Follow procedures for various cooking methods.

174.Prepare meals within specified time limit.

175.Practice safety habits.

176.Use sanitary cleaning procedures.

177.Evaluate prepared food for appearance and eating qualities.

178.Choose foods appropriate for various entertaining occasions.

179.Prepare foods to serve when entertaining.

180.Serve food creatively.

181.Compare the types of meal service.

182.Determine the type of meal service to be used.

183.Compare the various types of table appointments.

184.Establish guidelines for choosing table appointments.

185.Give reasons for placement of tableware.

186.Use acceptable guidelines for table setting.

187.Interpret general rules for table service.

188.Use rules of table service to serve various types of meals.

189.Establish acceptable rules of etiquette.

190.Practice rules of etiquette.

191.Relate past fashions with current trends.

192.Analyze relationship between clothing industry and the consumer.

193.Select clothing appropriate for various occasions.

194.Determine how aesthetic values affect clothing choices.

195.Determine how body types influence clothing choices.

196.Interpret the effects of the elements of design on the wearer.

197.Analyze how clothing affects self-concept.

198.Analyze how clothing communicates information about the wearer.

199.Determine types of clothing needed for seasons and geographical locations.

200.Select clothing for each stage of the life cycle.

201.Determine ways to meet clothing needs of the handicapped.

202.Establish criteria for improving personal appearance.

203.Interpret the effects of grooming on the total look.

204.Plan new purchases to coordinate with existing wardrobe.

205.Plan wardrobe for different lifestyles.

206.Make decisions concerning time, money, and other resources available for clothing.

207.Analyze relationship between quality of workmanship and prices for clothing.

208.Evaluate methods of payment available when purchasing clothing.

209.Make use of information on hang tags and labels when purchasing clothing.

210.Apply recycling techniques to clothing.

211.Create new items from used clothing.

212.Choose and care for sewing and pressing equipment.

213.Select pattern, fabric, and notions needed to construct a specific garment.

214.Make necessary alterations to achieve fit.

215.Layout and cut pattern from fabric.

216.Transfer pattern markings.

217.Utilize effective pressing techniques.

218.Construct garment utilizing appropriate methods and techniques.

219.Evaluate finished garment using established standards.

220.Determine proper cleaning procedures based on fiber, content, finish, fabrication, and use.

221.Practice effective laundry procedures.

222.Evaluate professional cleaning services available.

223.Use recommended methods of stain removal based on type of fabric.

224.Identify types of repairs usually needed in clothing.

225.Practice simple procedures.

226.Select storage methods suitable for the protection of clothing and other textile products.

227.Organize storage facilities for convenience.

228.Examine agencies in the community that promote and finance housing.

229.Determine community resources that influence housing selection.

230.Classify types of housing.

231.Determine types of housing available in the community.

232.Compare the cost of various types of housing.

233.Investigate ways to finance housing.

234.Assess needs based on individual and family activities.

235.Examine values and goals that affect housing choices.

236.Analyze the combined effect of needs, values, and goals upon housing choices.

237.Select types of housing appropriate to various lifestyles and life cycles.

238.Apply art principles to home decorating.

239.Utilize guides for selecting furniture.

240.Apply basic rules of furniture arrangement.

241.Select appropriate window treatments for various window styles.

242.Coordinate backgrounds for furnishings.

243.Select appropriate accessories.

244.Select various types of lighting.

245.Determine professional interior design services in the community.

246.Analyze desirable characteristics of floor plans.

247.Analyze laws and regulations affecting housing.

248.Examine construction techniques used in home building and remodeling.

249.Analyze guidelines to consider when planning kitchens and utility areas.

250.Develop plans for use of time and energy.

251.Perform housekeeping tasks.

252.Perform maintenance tasks.

253.Select equipment and tools.

254.Use and care for equipment and tools.

255.Determine the appropriate methods used to solve various cleaning problems.

256.Analyze the need to practice safety.

257.Apply safety procedures.

258.Analyze the need to conserve resources.

259.Practice energy conservation.

260.Practice preventive maintenance.

261.Discriminate between simple maintenance tasks and those needing professional help.

262.Determine storage needs.

263.Use storage space efficiently.

264.Relate care of grounds to overall beauty of the home.

265.Determine ways to improve exterior surroundings.

266.Analyze various life styles.

267.Assess the ways in which a chosen life style affects one's decisions.

268.Analyze reasons for needed flexibility in life styles.

269.Determine the basis on which rational financial decisions are made.

270.Distinguish between needs and wants and their effect on consumer decisions.

271.Assess personal and family values in relation to financial decision making.

272.Establish goals and set priorities.

273.Utilize available consumer resources.

274.Apply the decision-making process to financial choices.

275.Analyze basic components of a spending plan.

276.Develop and implement spending plans.

277.Assess the effectiveness of spending plans.

278.Designate essential financial records.

279.Implement a financial recordkeeping system.

280.Analyze types of banking services.

281.Select banking services for self and/or family.

282.Perform banking transactions.

283.Interpret the concept of credit.

284.Analyze the pros and cons of using credit.

285.Examine types and sources of credit.

286.Interpret laws governing credit.

287.Determine cost of credit.

288.Make credit choices.

289.Examine the importance of an insurance program.

290.Investigate types of insurance.

291.Establish criteria for selecting insurance and agency.

292.Plan an insurance program to meet individual and/or family needs.

293.Review and update insurance program.

294.Explain the scope and benefits derived from the social security program.

295.Compare various retirement plans.

296.Develop a protection plan.

297.Evaluate kinds and sources of savings and investment plans.

298.Determine factors to consider in developing a savings and investment plan.

299.Develop a savings and investment plan based on goals and income.

300.Secure information needed to engage in estate planning.

301.Make a will.

302.Specify sources that assist families when death occurs.

303.Secure information about types and costs of funerals.

304.Devise a plan for payment of funeral costs.

305.Interpret legal aspects involved in death.

306.Establish the need for obtaining information before making a purchase.

307.Judge the role advertising plays in purchasing goods and services

308.Differentiate among warranties, guarantees, and service contracts

309.Exhibit skill in interpreting labeling and packaging information.

310.Formulate guidelines for wise shopping.

311.Examine deceptive practices of both the consumer and merchant.

312.Employ consumer purchasing skills.

313.Analyze and select services purchased by the consumer.

314.Examine available public services.

315.Explore taxes needed to finance public services.

316.Use public services as needed.

317.Secure information about background, purposes, and types of taxes

318.Select aids for preparing and paying taxes.

319.Demonstrate the ability to prepare an inome tax return.

320.Establish a tax payment plan.

321.Review legislation which is beneficial to the consumer.

322.Designate agencies which function to aid and protect the consumer

323.Apply laws and utilize agencies in exercising rights and responsibilities.

HORTICULTURE

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1...Discuss the scope, size and economic importance of the horticulture industry.

2...Describe five careers in the horticulture industry, including working conditions and educational and personal requirements.

3...Survey the local job market and select a job that is compatible with student interests and preferences; list skills needed for the job; and describe how to prepare for the job.

4...Note two contributions of plants to the life cycle on earth.

5...List and describe the purpose of the four main parts of plants.

6...Explain the process of photosynthesis.

7...Explain the major structural difference between dicot and monocot stems and how the stems grow.

8...Describe the process of pollination.

9...List four factors that affect the roots of plants.

10..Describe the differences between clayey, sandy, and loamy soils and identify a sample of each.

11..Explain three ways to improve soil drainage and two ways to increase moisture retention of soil.

12..Explain what is meant by the pH value of soil.

13..Compose a balanced fertilizer program for one plant that is grown commercially in the area.

14..List four above-ground requirements for good plant growth.

15..List the three major plant food elements and two functions of each.

16..Select plants suitable for propagating by use of cuttings and determine if the maturity of wood is correct for optimum rooting.

17..Propagate at least ten softwood or semi-hardwood plants from cuttings.

18..Explain why scientific plant names are used.

19..Explain the difference between genus, species, and variety.

20..List five plants by their common and scientific binomial names.

21..Give four examples of family names (both Latin and common).

22..Differentiate between the two types of narrowleaf evergreen leaves.

23..List four reasons for using narrowleaf evergreens in the landscape.

24..Describe the primary purpose of a lath house.

25..Describe the proper fertilizer practices for narrowleaf evergreens.

26..Demonstrate the proper procedure for planting narrowleaf evergreens.

27..List five ways in which broadleaf evergreens are used in the landscape.

28..List four cultural requirements of broadleaf evergreens.

29..Describe the soil and fertilizer requirements of broadleaf evergreens.

30..Explain the procedure for transplanting broadleaf evergreens.

31..List three pests which attack broadleaf evergreens and one control for each.

32..List the six functions of trees in the landscape.

33..Select at least two specific trees to fulfill each of these six functions.

34..Demonstrate the proper planting technique for bare root, balled and burlap, and containerized trees.

35..Identify at least five deciduous shrubs.

36..List at least two uses of deciduous shrubs in the landscape.

37..Explain orally or in writing the three ways deciduous shrubs are purchased.

38..Outline the planting procedure for deciduous shrubs.

39..Identify the three major types of ground covers.

40..List three uses of ground covers.

41..Describe the cultural requirements of ground covers.

42..Identify five factors that must be considered when selecting ground covers.

43..Prepare a soil mixture for growing poinsettias.

44..Transplant ten rooted poinsettia cuttings.

45..Identify one growth regulator and use it correctly.

46..Outline a growing schedule for poinsettias.

47..Identify four insects that affect poinsettias and the control measures for each.

48..List the common names of three diseases that affect poinsettias and the control measures for each.

49..List ten different plant materials used in holiday decorations.

50..Construct an evergreen wreath, Delarobia wreath, door swag, and kissing ball..

51..List five different fruit and nut pods which can be used in the construction of a Delarobia wreath.

52..Construct a holiday centerpiece.

53..List ten plant materials which may be used for centerpieces.

54..Describe the procedures for keeping a centerpiece fresh.

55..Select ribbon of appropriate size and color for a specific arrangement.

56..Construct a bow to be used on a wreath or door swag.

57..List five plants commonly propagated by hardwood cuttings.

58..Select, collect and label mature cutting wood from one of the five identified parent plants.

59..Make and store ten hardwood cuttings.

60..Line out cuttings in the field at the proper planting time.

61..Keep accurate records of the percentage of cuttings that root.

62..Identify the three main routes by which pesticides enter the body

63..Examine five pesticide's labels and identify the types of each and its degree of toxicity.

64..Examine five pesticide's labels and demonstrate the recommended precautions in the mixing and handling of each.

65..List first aid steps to be taken in case of poisoning by one pesticide from each of the three families of pesticides.

66..Identify common insect pests and select an effective control method for each.

67..List four natural insect control methods.

68..Describe the six ways in which insects are killed by insecticides and the type of insect against which each is most effective.

69..List the names and characteristics of the three major groups of insecticides (according to their chemical makeup).

70..Compare the six ways in which insecticides are applied.

71..Explain the relationship between the life cycle of insects and timing of insecticide application.

72..Identify fungus diseases on plants and set up a spray or dusting schedule for effective control.

73..Recognize at least two types of rodents and apply a rodenticide in a bait station.

74..Recognize slugs and snails on sight and develop a slug control program, including chemicals used in the bait station or as contact poisons.

75..Identify two nematocides and explain in writing their application to specific situations.

76..Identify a weed problem and select an herbicide to control the problem.

77..Define and differentiate between selective and nonselective herbicides.

78..Describe three ways in which herbicides destroy weeds.

79..Outline in writing how a sprayer is calibrated.

80..List three possible reasons for failure of an herbicide to work properly.

81..Properly apply a herbicide.

82..Outline in writing a growing schedule for potted mums for any preselected market date.

83..Pot rooted cuttings.

84..Regulate formation of chrysanthemum flower buds by control of night length.

85..Determine the proper cultural requirements, such as fertilizing and watering, for production of a marketable chrysanthemum crop.

86..List five reasons for pruning.

87..Describe four types of pruning.

88..Demonstrate pruning a stem at the proper angle.

89..Explain how the correct time to prune is determined.

90..Give three examples of each of the following types of plants and describe the pruning technique used for each type: a) deciduous spring flowering shrubs, b) summer flowering shrubs, c) broadleaf evergreeens, and d) conifers.

91..Identify the parts of a seed and the functions of each.

92..Differentiate between indirect and direct seeding methods.

93..Prepare a media for seeds, sow seeds, and provide the proper conditions for germination.

94..Water, fertilize and harden off seedlings before transplanting.

95..Transplant seedlings into flats or pots.

96..Describe the processes of separation and division and explain the major difference.

97..Identify five specialized plant structures used in propagation and explain how each is used.

98..List five plants propagated by separation or division and the type of specialized structure used in each case.

99..Write a brief definition of bulb, corm, tuber, tuberous root, and rhizome.

100.Identify three types of grafts from a sketch.

101.List at least one plant that is propagated by each of the three grafting methods.

102.List the three reasons for grafting.

103.Describe two situations in which layering is used to propagate plants.

104.List five plants commonly propagated by layering and two plants which propagate naturally by layering.

105.List the eight steps in the layering process.

106.Perform simple layerig as described in the text.

107.List the four major concerns in caring for houseplants.

108.Mix a media to use for growing various houseplants.

109.Describe the best cultural conditions (water, light, and soil requirements) for ten selected houseplants of his or her choice.

110.List the four methods of watering houseplants.

111.List and explain at least four advantages and three disadvantages of container growing.

112.List at least five types of plants that are commonly grown in containers.

113.List or explain orally the characteristics of a good growing site

114.List the factors to consider in selecting a container.

115.Prepare a soil mix, fill a container, and successfully place a plant in a container.

116.Set up a growth control schedule.

117.Discuss marketing of the finished product.

118.Outline at least one winter storage method where temperatures fall to below freezing.

119.List at least one reason for shading container plants.

120.Describe the three major career fields within the landscape profession.

121.State the main objectives of good residential landscaping.

122.List the five principles of landscape design and examples of an application of each principle.

123.List three reasons for establishing and maintaining a lawn.

124.Describe two methods of establishing proper drainage in a lawn.

125.List three materials that are used to increase the organic matter in a new lawn.

126.Name eight items that must be included on a seed label.

127.Describe three ways turf grasses are started in the United States

128.Demonstrate the five steps in seeding a lawn.

129.List the six factors of good lawn maintenance and explain each orally.

130.Describe the analysis of a good turf fertilizer.

131.Determine the best time to apply fertilizer to a lawn.

132.Demonstrate how to set the mowing height of a rotary mower.

133.List the three causes of fungus disease in lawns.

134.Inspect a lawn area and determine if it requires renovation.

135.Determine which of the four methods of renovation should be used on a lawn.

136.Use the step-by-step approach to renovate a lawn.

INDUSTRIAL ARTS

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1...Demonstrate safe operation of selected tools and equipment.

2...Maintain safe conditions in laboratories

3...Evaluate laboratories and facilities for unsafe conditions.

4...Plan and design industrial products of the student's choice.

5...Apply problem-solving techniques to the design process.

6...Complete itemized list of materials.

7...Prepare working drawings using standard symbols and conventions.

8...Recognize good design and construction.

9...Practice evaluation of products based on given standards or applications.

10..Practice the servicing of industrial products and equipment.

11..Develop criteria for selecting, purchasing, and contracting services.

12..Relate wise consumer choices to the free enterprise system.

13..Become proficient in the use of applicable tools, machines, and equipment.

14..Understand the properties of a wide range of industrial materials through testing.

15..Gain familiarity with the processes of various technologies.

16..Practice conservation and recycling of industrial materials.

17..Use American National Standards Institute symbols and conventions

18..Demonstrate freehand sketching techniques.

19..Apply accepted lettering practices and styles.

20..Understand the relationship between points, lines, and planes through multiview drawing principles.

21..Describe objects adequately through the principles of shape and size description.

22..Describe objectives through various pictorial development techniques.

23..Apply drawing techniques suitable for reproduction.

24..Apply the concepts of residential building design and technical drafting.

25..Understand the use of the computer in designing and making working drawings.

26..Use drawing reproduction and equipment.

27..Apply sketching techniques to develop drawing format and graphic problem solving.

28..Demonstrate orthographic projection techniques using advanced applications.

29..Select appropriate drafting conventions to describe object shape.

30..Apply descriptive geometry principles in developing revolution, auxiliary and successive auxiliary drawings.

31..Produce working drawings of single and multi-part mechancial devices.

32..Demonstrate the drawing of isometric, obliques, and perspective drawing.

33..Use standard parts charts and tables.

34..Apply the principles of advanced size description relating to tolerance and precision dimensions.

35..Understand the principles of threads and fasteners and their symbolic application.

36..Understand the use of the computer for designing, plotting, and engineering manufactured products.

37..Use drawing reproduction equipment.

38..Understand the use of appropriate techniques and symbols common to selected technical drawing fields such as machine, structural welding, electrical and electronic, piping, topographical, and computer aided drafting.

39..Understand the use of appropriate techniques and symbols common to selected technical drawing fields such as drafting for numerical control, technical illustration, gears and cams, developments, and jigs and fixtures.

40..Describe layout and assembly of systems function using appropriate pictorial drawings.

41..Develop production drawings in machine tools and parts, structural steel, welding, electrical and electronics, piping, topographical, and computer-aided drafting.

42..Develop production drawing in drafting for numerical control, gears and cams, developments, and jigs and fixtures.

43..Apply sketching, projection, and rendering techniques to produce technical illustrations.

44..Understand the use of the computer for designing, plotting, and engineering manufactured products.

45..Use symbols, lettering, and building standards as published by the American Institute of Architects.

46..Understand minimum standards established by local and state building codes.

47..Select building materials.

48..Identify types of building construction.

49..Investigate basic housing styles.

50..Apply energy conservation practices.

51..Incorporate building safety and security measures into design.

52..Differentiate between residential/commercial and light/heavy construction.

53..Understand the use of the computer in designing, making working drawings, writing specifications, developing cost estimates, and managing construction.

54..Use architectural symbols and procedures to draw floor plans, elevations, foundation plans, plot plans, wall sections and details.

55..Apply design and planning principles to develop floor plan arrangement.

56..Apply technical illustration techniques to produce presentation drawings.

57..Develop schedules and written specifications.

58..Define the nomenclature of camera systems.

59..Apply principles of optics and light control.

60..Use artificial lighting techniques.

61..Demonstrate chemical preparation procedures.

62..Understand the principles of video, computer-generated images, and other photographic media.

63..Apply composition techniques in pictures.

64..Understand computer-assisted camera techniques.

65..Produce black and white negatives and prints.

66..Produce color negatives and prints.

67..Produce color transparencies.

68..Evaluate photographic work.

69..Display photographic work.

70..Understand the history of power systems.

71..Understand the development of power systems with the social and industrial implications.

72..Investigate and apply principles of generation, conversion, transmission, and control and use of mechanical and fluid power.

73..Investigate the use of computers to monitor and control power systems.

74..Experiment with internal and external combustion engines.

75..Analyze and experiment with mechanical applications to distribute and utilize power.

76..Test pneumatic and hydraulic control systems.

77..Determine efficiency and output of power systems.

78..Recognize environmental relationships of power systems.

79..Apply the use of electricity and electronics laws and principles.

80..Investigate atomic theory, sources of electricity, current flow, magnetism, theory and use of meters, simple circuits, simple DC and AC motors, and residential wiring.

81..Demonstrate the use of vacuum tubes, power supplies, amplifiers, oscillators, transmitters, electromatic radiation, receivers, and semiconductors.

82..Apply electrical practices involved in storage system.

83..Investigate electromagnetic systems.

84..Understand electro-mechanical systems.

85..Understand microwave laser systems.

86..Investigate the utilization of generators and transformers.

87..Understand the use of computerized circuit controls and program controls.

88..Describe solid state electronics.

89..Survey the mini-component electronic systems.

90..Apply radio and television communications principles.

91..Understand single phase and three phase concepts.

92..Investigate security and detector system provided by electronic industry.

93..Apply the industrial processes of material testing, planning, designing, fabricating, finishing, repairing, and refinishing.

94..Select construction materials best suited to a given application.

95..Transform raw materials into finished products.

96..Apply mass production techniques.

97..Demonstrate knowledge and skills in the use of hardware, fasteners, jointery, and adhesives.

98..Understand techniques and processes used in automated production systems.

99..Identify synthetic materials and exotic materials used for furniture and cabinetmaking.

100.Investigate industrial tools, materials, and processes common to the construction, furniture, and cabinetmaking industries.

101.Understand the use of the computer and robots in manufacturing wood products.

102.Develop basic skills in bench and wrought metal.

103.Develop basic skills in machining, welding, foundry, forging and metallurgy, sheetmetal, and metal spinning.

104.Investigate the industrial processes of metal coating.

105.Practice metalworking skills and techniques for fabricating, forming, shaping, fastening, bending, cutting, drilling, turning, and finishing.

106.Research powdered metal technology.

107.Understand the oxidation of metals.

108.Apply mass production techniques.

109.Understand the properties and characteristics of metals.

110.Understand the use of the computer and robots in manufacturing metal products.

111.Apply basic principles to molding, forming, mold making, bonding, laminating, encapsulating, foams, coating, vinyl dispersion, decorating, and thermofusion.

112.Practice mold making using silicone, urethane, latex, and epoxy.

113.Fabricate with chemicals, hot air, and heat sealing techniques.

114.Laminate with pressurized systems.

115.Apply machining techniques.

116.Use and maintain tools unique to the plastics industry.

117.Apply mass production techniques.

118.Understand the use of the computer and robots in manufacturing plastics products.

METALS

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1...Identify metal manufacturing processes.

2...Define and identify the physical structure of metals.

3...Identify properties of metals.

4...Identify methods used to heat treat metals.

5...Identify processes used to produce iron.

6...Identify processes used to produce steel.

7...Identify processes used to produce copper, brass and bronze alloys.

8...Identify processes used to produce aluminum.

9...Identify the process for the production of magnesium and titanium

10..Layout a metal surface by marking or scribing center points, circles, arc or straight lines.

11..Identify the purpose of jig buttons and the method of spacing holes in circles.

12..Use the sine bar to check angles, bevels and tapers pertaining to templates, gauges and other angular work.

13..Use a bevel protractor to make an assigned relative measurement.

14..Use steel rules to make measurements.

15..Use the micrometer.

16..Read a vernier scale as applied to calipers and micrometers.

17..Use a dial indicator, center tester and speed indicator in bench work to set up and inspect work for roundness, concentricity, straight and parallel surfaces.

18..Use precision gage blocks, tapered ring, plug and snap gages.

19..Identify and be able to use hand hacksaws including types and sizes of blades.

20..Use abrasives and lapping compounds to obtain a fine, smooth surface on hard or soft metal.

21..Identify and use files.

22..Scrape flat and curved bearing surfaces for making smooth running machine parts and surface plates.

23..Use hammers and screwdrivers for hand bench use.

24..Identify and use wrenches.

25..Use the bench vise or clamps to hold materials for bench work.

26..Identify and be able to use tools for chipping.

27..Use hand taps, dies and hand reamers.

28..Identify safety procedures for using power tools in bench work.

29..Make a drive, sliding, running and shrink fit for outside and inside measurements for gears, pulleys, bushings, shafts, spindles and threads.

30..Identify types of screws, bolts and nuts.

31..Use the thread, center, fillet and radius gages for accurate gaging in bench work operations.

32..Identify lubricants and greases used for machine maintenance.

33..Perform general shop repairs to maintain shop equipment.

34..Identify hazards and safety precautions in working with hand tools and portable power tools in the machine shop.

35..Identify materials used in sheet metalwork.

36..Develop a straight-line, a parallel-line, a radial-line and a triangulation sheet metal pattern (stretchout).

37..Cut sheet metal using hand snips.

38..Bend sheet metal by hand.

39..Bend metal on a bar folder or brake.

40..Roll-form sheet metal.

41..Form sheet metal seams.

42..Use the rotary machine to wire an edge, turn a burr, bend and crimp sheet metal.

43..Fasten sheet metal with rivets or sheet metal screws.

44..Soft solder sheet metal.

45..Demonstrate a knowledge of shop regulations, safety and the use of instructional materials.

46..Correctly identify standard welding symbols and interpret shop sketches.

47..Demonstrate the proper and safe use and care of welding related hand and powered tools and equipment.

48..Describe the chemical, physical and mechanical properties of metals important to welders, the methods for preparing metals and spark testing methods for identifying metals.

49..Demonstrate ability to measure and mark materials accurately within 1/16 inch.

50..Demonstrate the proper use of clamps and jigs for holding metals to be welded.

51..Read and interpret blueprints and correctly match finished products with blueprint requirements.

52..Demonstrate knowledge of safety hazards, accident prevention, safety regulations and safety equipement.

53..Demonstrate a knowledge of cylinders and gases used in oxyacetylene welding.

54..Demonstrate an ability to identify parts of oxygen and acetylene regulators and describe the function of each regulator part.

55..Select the proper size tip and torch for a given job and demonstrate the correct procedures for maintaining tips.

56..Demonstrate a safe and correct procedure in setting up and lighting an oxyacetylene torch, shutting down the torch and caring for equipment.

57..Using oxyacetylene welding apparatus, control a puddle without a filler rod.

58..Use oxyacetylene equipment to weld an outside corner joint in four positions (flat, horizontal, vertical and overhead) without a filler rod.

59..Demonstrate an ability to produce a plate of beads with a filler rod using an oxyacetylene welding apparatus.

60..Use oxyacetylene welding equipment to weld butt joints in the flat, horizontal, vertical and overhead positions.

61..Demonstrate an ability to weld a lap joint in the horizontal, vertical, flat and overhead position using oxyacetylene welding apparatus and various gages of mild steel plate.

62..Weld T-joints in the horizontal, vertical, flat and overhead positions using a filler rod.

63..Set up the oxyacetylene apparatus for flame cutting.

64..Light an oxyacetylene cutting torch and make standard welding cuts on mild steel plate, round solids and pipe.

65..Demonstrate an ability to layout and cut smooth, slag free holes using oxyacetylene cutting apparatus.

66..Demonstrate an ability to lay out and cut smooth, slag free cuts using automatic cutting machine.

67..Using oxyacetylene welding apparatus and brass rods, the student will demonstrate proper procedure for running beads on steel plate.

68..Demonstrate ability to braze lap joints with uniform appearance and correct depth of bond.

69..Silver braze various metals using oxyacetylene equipment.

70..Solder copper, sheet metal and other metals using oxyacetylene equipment.

71..Demonstrate an ability to weld cast iron using oxyacetylene apparatus.

72..Demonstrate an ability to cut and weld pipe using oxyacetylene apparatus.

73..Select and set up shielded arc welding apparatus.

74..Weld string and weave beads in all four positions (flat, vertical, horizontal and overhead) using shielded metal arc apparatus

75..Arc weld a pad of overlaping beads in the flat, vertical, horizontal and overhead positions using E6010, E6011 and E6013 electrodes.

76..Shield arc weld lap joints in the flat, horizontal, vertical and overhead positins using E6010,, E6011, E6012, E6013 electrodes and different gage metals.

77..Shield arc weld butt joints in the flat, horizontal, vertical, and overhead positions using E6010, E6011, E6012, E 6013, E6024, E7018 and E7024 electrodes and different gage metals.

78..Shield arc weld T-fillet joints in the flat, horizontal, vertical and overhead positions using E6010, E6011, E6013, E7018 and E7024 electrodes.

79..Test arc welded joints using the break test and the guided bend test.

80..Demonstrate a knowledge of tungsten inert gas arc welding applications, advantages and terminology.

81..Demonstrate a knowledge of safety hazards, accident prevention, safety regulations and safety equipment.

82..Identify all major parts of the equipment used in TIG welding.

83..Set up TIG equipment to weld aluminum.

84..Demonstrate a knowledge of the MIG welding process, safety hazards and precautions.

85..MIG weld beads on mild steel plate of various gages.

86..MIG weld butt joints in the flat, horizontal, vertical and overhead positions using mild steel plate.

87..MIG weld lap joints in the flat, horizontal, vertical and overhead positions using mild steel plate.

88..MIG weld fillet joints in the flat, horizontal, vertical and overhead positions using mild steel plate.

89..MIG weld lap joints, butt joints, fillet joints and corner joints using various types and gages of stainless steel plate.

90..MIG weld lap joints, butt joints, fillet joints and corner joints using various types and gages of aluminum and aluminum alloy plate.

91..Identify the parts of a drilling machine and describe their operations.

92..Identify safety practices and precautions on a drilling machine.

93..Identify work holding and locating device used on drilling machines.

94..Identify and be able to use drill bit holding devices on the drilling machine.

95..Identify types, sizes and nomenclatures of drill bits.

96..Identify drill feeds and speeds.

97..Identify principles and procedures of straight drilling on the drilling machine.

98..Identify coolants used when drilling or reaming.

99..Identify and observe proper care and use of drills and be able to correctly grind a drill bit.

100.Identify and use gages used in drill grinding.

101.Identify and be able to use a drill grinding machine.

102.Identify sizes, types, nomenclature, specifications, selection and storage of machine reamers.

103.Demonstrate an understanding of machine reaming.

104.Identify procedures for boring and counterboring.

105.Identify procedures and be able to use the drill press in spot facing operations.

106.Perform countersinking and center drilling operations on the drilling machine.

107.Identify power cut-off saws by types, sizes, nomenclature and range of work.

108.Identify safe practices and work habits on the power saw.

109.Identify types of work holding devices used on the power cut-off saw.

110.Identify, select, mount and maintain saw blades.

111.Identify and be able to calculate speeds, feeds and requirements for coolants for the power cut-off saws.

112.Set up and use the power cut-off saw to perform straight and angular operations.

113.Identify types of metal band saws and ranges of work.

114.Identify coolants and lubricating agents used for band saw work.

115.Choose saw blades for the metal band saw.

116.Calculating feeds and speeds for jobs on the metal band saw.

117.Identify safe practices and precautions for engine lathe work.

118.Identify engine lathe types and sizes.

119.Identify work holding devices as used on a lathe.

120.Identify cutting tools and tool holding devices on the lathe.

121.Identify measuring tools used in engine lathe work.

122.Identify attachments used on an engine lathe and describe their uses.

123.Calculate cutting feeds and speeds on the lathe.

124.Calculate RPM for a known cutting speed, rim speed or surface speed on an engine lathe.

125.Identify principles of centering stock on the engine lathe.

126.Identify principles of and facing on an engine lathe.

127.Identify principles of straight turning and turning to shoulders.

128.Identify types, sizes, nomenclature, specifications, selection and storage of chucks.

129.Perform the operation of form turning on the lathe.

130.Identify principles of faceplate work and accessories used.

131.Identify principles of and be able to use draw-in collets on the engine lathe.

132.Identify and apply principles of drilling on an engine lathe.

133.Identify reamers used on the engine lathe.

134.Perform reaming operations on the engine lathe.

135.Perform boring operations on the engine lathe.

136.Identify types of and be able to use mandrels on the engine lathe

137.Identify types of tools and be able to perform knurling operations on the engine lathe.

138.Perform cutting off operations on the engine lathe.

139.Identify thread cutting devices on the engine lathe.

140.Identify the parts of a thread.

141.Identify American National thread standards.

142.Compute formulas for American National thread forms.

143.Compute sharp V-thread formulas from an example.

144.Identify Acme threads and compute dimensions.

145.Identify Acme tap drill sizes and use the Acme tap.

146.Identify and figure dimensions of square threads.

147.Identify the classes of fits of screw threads.

148.Use thread pitch gages, center gages and plug and ring gages.

149.Use a thread micrometer to measure sharp V and American National threads.

150.Measure threads using the three wire method.

151.Make all computations and cut threads on an even geared lathe.

152.Compute all formulas for thread cutting with change gears on a lathe which is not even geared.

153.Cut threads on a quick-change gear lathe.

154.Identify multiple lead screw threads.

155.Cut left hand threads on the engine lathe.

156.Determine a tap drill size for tap drilling on the engine lathe.

157.Cut internal threads and perform tapping operation on a lathe.

158.Identify basic principles of taper turning and common tapers on the engine lathe.

159.Compute tapers in taper per foot (TPF).

160.Measure short or abrupt tapers.

161.Gage inside and outside tapers using taper ring, plug gages and micrometers.

162.Turn a taper on the lathe using the offset tail stock method.

163.Cut a taper with the compound rest on the engine lathe.

164.Cut a taper on the engine lathe using a taper attachment.

165.Bore or turn internal tapers on the engine lathe.

166.Identify coolants and cutting compounds and be able to choose a coolant or compound for a given job.

167.Identify lubricants and greases used on the engine lathe.

168.Recognize types and sizes of milling machines and what kinds of work they do.

169.Identify and select a work holding device for a specific job.

170.Identify, select and install a milling machine attachment.

171.Identify and attach cutting tools and holders.

172.Calculate cutting speeds and feeds.

173.Set up and square the sides of a rectangle.

174.Machine a flat surface using the face milling cutter.

175.Machine a vertical surface with a side milling cutter.

176.Machine an irregularly shaped surface with a form milling cutter.

177.Machine a workpiece to a specified angle and height.

178.Machine all surfaces of a workpiece using an end milling cutter.

179.Drill a hole and ream or bore to specifications.

180.Saw, slit and cut off metal to specifications.

181.Cut a woodruff keyseat and a T-slot to specifications.

182.Cut a flute or groove and a helix using the dividing head.

183.Cut a circle segment to specifications.

184.Cut witness marks of equal graduation on a flat and a cylindrical surface.

185.Cut a sheetmetal template and use for the profiling operation.

186.Provide daily lubrication, adjustment and major oil change for the milling machine.

TRANSPORTATION

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1...Demonstrate and utilize school and shop policies and safety procedures.

2...Maintain a parts inventory.

3...Read and interpret shop service manuals.

4...Complete job work order forms.

5...Identify and maintain shop tools and equipment.

6...Use precision measurement tools and equipment.

7...Demonstrate an understanding of engine theories of operation.

8...Demonstrate a knowledge of electricity fundamentals.

9...Demonstrate a knowledge of fuels.

10..Demonstrate a knowledge of lubricants.

11..Demonstrate a knowledge of hardware and fasteners.

12..Demonstrate basic metals operations.

13..Demonstrate welding and soldering techniques.

14..Demonstrate a knowledge of applied mathematics.

15..Demonstrate a knowledge of applied science.

16..Discuss and demonstrate how to get a job.

17..Discuss and demonstrate how to keep a job.

18..Remove, inspect and replace the fuel tank, fuel lines and fuel filter.

19..Service the air cleaner.

20..Adjust fuel/air mixture and mechanical linkage.

21..Recondition the float type carburetor.

22..Recondition the suction-lift-type carburetor.

23..Recondition the diaphragm-type carburetor.

24..Recondition fuel pump.

25..Repair and/or adjust governors.

26..Diagnose fuel system problems.

27..Inspect, select and install spark plugs.

28..Time the ignition system.

29..Test, remove and replace magneto ignition components.

30..Test, remove and replace battery ignition components.

31..Test, remove and replace electronic ignition system components.

32..Diagnose ignition system problems.

33..Inspect and repair the rope-rewind starting system.

34..Inspect and repair the wind-up systems.

35..Inspect and repair electric type starting systems.

36..Diagnose starting system problems.

37..Test and service storage batteries and battery packs.

38..Test and repair DC generators and components.

39..Test and repair AC generators and components.

40..Test and repair the combination generator/starter system and components.

41..Diagnose charging system problems.

42..Remove and replace mufflers and exhaust pipes.

43..Clean and inspect 2-cycle exhaust systems.

44..Maintain emission control devices.

45..Diagnose exhaust and emission control system problems.

46..Check valve operation.

47..Grind valves and valve seats.

48..Inspect and repair the cylinder head.

49..Adjust valve clearances.

50..Repair 2-cycle engine valves.

51..Diagnose valve problems.

52..Inspect and measure wear condition (4-cycle engine).

53..Disassemble and inspect component parts (4-cycle engine).

54..Reassemble and replace component parts (4-cycle engine).

55..Diagnose 4-cycle engine problems.

56..Inspect and measure wear condition (2-cycle engine).

57..Disassemble and inspect component parts (2-cycle).

58..Reassemble and replace component parts (2-cycle).

59..Diagnose 2-cycle engine problems.

60..Identify the component parts of outboard motor powerheads.

61..Test, remove and replace magneto ignition system components.

62..Test, remove and replace electronic ignition system components.

63..Remove outboard motor powerhead from the lower unit.

64..Recondition the carburetor and fuel system components.

65..Disassemble and inspect the powerhead.

66..Reassemble the powerhead.

67..Test the motor in the tank.

68..Adjust throttle speed, timing and fuel/air ratio.

69..Diagnose problems in the outboard powerhead.

70..Identify the component parts of an outboard motor lower unit.

71..Replace propellers.

72..Inspect and replace the water pump and component parts.

73..Disassemble and inspect the gear drive assembly.

74..Reassemble the gear drive.

75..Mount the lower unit to the powerhead.

76..Mount the motor on the boat.

77..Make control adjustments.

78..Diagnose problems in the lower unit.

79..Winterize and store the outboard motor.

80..Check and change engine oil and oil filter.

81..Check fluid level and refill transmission and rear end.

82..Lubricate the chassis and components of an automobile.

83..Check and replace windshield wiper blades.

84..Repair tires and tubes.

85..Replace light bulbs and fuses.

86..Wash and wax a vehicle.

87..Perform complete safety inspection.

88..Adjust fuel/air mixtures and mechanical linkage.

89..Clean or replace fuel and air filters.

90..Remove carburetor from engine.

91..Disassemble, clean and inspect carburetor.

92..Reassemble and test carburetor.

93..Test and replace a fuel pump.

94..Service fuel tank, lines, hoses and fuel level monitoring devices

95..Diagnose fuel system problems.

96..Inspect, select and install spark plugs.

97..Time the ignition.

98..Inspect and replace circuit wiring, distributor cap and rotor.

99..Test, remove and replace conventional ignition system components.

100.Test, remove and replace electronic ignition system components.

101.Use and interpret the ignition analyzer.

102.Diagnose ignition system problems.

103.Service battery and cables.

104.Replace and/or rebuild solenoids and switches.

105.Remove and replace the starter.

106.Disassemble and inspect the starting motor components.

107.Reconditioning the starter components.

108.Reassemble and test the starter.

109.Diagnose starting problems.

110.Test the DC generator and regulator output.

111.Test the alternator and regulator.

112.Remove, disassemble and inspect the DC generator.

113.Rebuild the generator.

114.Remove, disassemble and inspect the alternator.

115.Rebuild the alternator.

116.Remove and replace the generator and alternator.

117.Diagnose charging system problems.

118.Check coolant level and freezing point.

119.Clean and flush the cooling system.

120.Inspect, adjust or replace fan belts and hoses.

121.Test cooling system with pressure.

122.Remove, repair and replace the radiator.

123.Test and replace thermostats and radiator caps.

124.Inspect and replace the variable speed fan.

125.Check, remove and replace the water pump.

126.Inspect and repair the heater controls.

127.Remove, repair and replace the heater core.

128.Diagnose engine heating and cooling system problems.

129.Identify brake system components.

130.Adjust brakes.

131.Inspect, remove and rebuild brake cylinders.

132.Remove and rebuild brake calipers.

133.Replace brake shoes and pads.

134.Machine a brake drum.

135.Machine brake rotors.

136.Replace hydraulic control valves and lines.

137.Replace a power brake unit.

138.Diagnose brake system problems.

139.Locate and identify suspension system components.

140.Inspect suspension system components.

141.Lubricate and adjust front wheel bearings.

142.Remove and replace shock absorbers.

143.Remove and replace coil springs and rear leaf springs.

144.Repair, change and balance wheels and tires.

145.Inspect, remove and replace upper and lower control arms and bushings.

146.Inspect, remove and replace upper and lower ball joints.

147.Inspect, remove and replace king pins and bushings.

148.Inspect, remove and replace torsion bars.

149.Inspect, remove and replace twin I-beams.

150.Diagnose suspension system problems.

151.Identify steering system components.

152.Adjust manual steering gear.

153.Inspect, lubricate, remove and replace steering linkage.

154.Inspect, remove and replace a power steering unit.

155.Remove and replace a steering column.

156.Align the front end.

157.Diagnose steering system problems.

158.Identify and describe emissions control components.

159.Measure exhaust emissions.

160.Test and replace components in the positive crankcase ventilation (PCV) system.

161.Test and replace components in the fuel evaporative control system.

162.Test and replace components in the exhaust gas recirculation (EGR) system.

163.Test, remove and replace the catalytic converter.

164.Test and replace components in the thermostatic air cleaner system.

165.Test and replace components in the air injection reaction (AIR) system.

166.Test and replace components in the spark control system.

167.Remove and replace exhaust pipes, mufflers and tail pipes.

168.Diagnose emissions control and exhaust system problems.

169.Identify cylinder head component parts.

170.Perform the cylinder compression and leakage test.

171.Adjust valves.

172.Remove the cylinder head(s).

173.Remove, clean and inspect the valves and component parts.

174.Reface valves and valve stems.

175.Inspect the cylinder head.

176.Grind valve seats.

177.Service the rocker arm, push rod and lifter assemblies.

178.Reassemble and replace the cylinder head(s).

179.Diagnose problems in the valve train.

180.Remove component parts to gain access to damper.

181.Remove vibration damper.

182.Remove front cover.

183.Remove and replace the timing chain and gears.

184.Replace the front cover and seal.

185.Diagnose time chain problems.

186.Remove engine from vehicle.

187.Remove and inspect usable parts.

188.Assemble new and used parts on block assembly.

189.Install engine assembly.

190.Test engine assembly.

191.Diagnose internal engine problems.

192.Disassemble gas engine.

193.Clean and inspect block and components.

194.Prepare cylinder block.

195.Install cam bearings.

196.Install piston pins and rings.

197.Install the crankshaft.

198.Install pistons and rod bearings.

199.Install oil pump, oil pan and component parts.

200.Compare automotive gas engines and diesel engines.

201.Perform cylinder compression and leakage test.

202.Remove, test and replace the fuel injector.

203.Remove, test and replace the fuel injection pump.

204.Remove, inspect and replace the turbocharger.

205.Remove an automotive diesel engine from a vehicle.

206.Disassemble and inspect component parts of an automotive diesel engine.

207.Rebuild the automotive diesel engine.

208.Install the automotive diesel engine.

209.Test the automotive diesel engine.

210.Diagnose automotive diesel engine problems.

APPENDIX II

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Directions for loading program with 1 Disk Drive

A. Place Program Disk in Drive 1 and turn computer on.
Your next screen will read:

MAIN MENU

1....CREATE IEP
2....PRINT IEP OBJECTIVES
3....CHANGE IEP DATA DISK
4....PRINT STUDENT IEP
5....GET/SAVE/ERASE IEP FROM DISK
6....ERASE IEP FROM MEMORY
7....ADD/EDIT IEP OBJECTIVES
8....CREATE A STUDENT DISK
9....QUIT

B. Press <3> and <Return>.

C. Then press <Y> and <Return>.

D. Remove your Program Disk from drive and place the Vocational Data Disk you wish to use in Drive.

E. Press <Return>.

F. Now you may return to Line I in outline.

The program is designed to give on screen prompts for appropriate disk switching.

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APPENDIX III

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Formatting a Disk

1. Place Apple ProDos Users Disk in Drive 1.
2. When menu appears on sceen press <F>.
3. When next menu appears press <V>.
4. When next menu appears press <F>.
5. When next menu appears press <RETURN>.
6. Now place a blank disk in drive two and press<2>. (If you have one disk drive only, take your PRODOS disk out of drive 1 and place you blank disk in drive 1, then press <RETURN>.
7. Now type DATA if you are making a Vocational IEP data disk or type STUDENT if you are making a student disk, then press <RETURN>.
8. The program will then format the disk.

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INDIVIDUALIZED VOCATIONAL EDUCATION PROGRAM
IVEP
SHORT TERM OBJECTIVES

Page _____
Date: _____
Grade: _____

Student _____ Program _____ Service Provider _____

SHORT TERM OBJECTIVES INCLUDING CRITERIA FOR MASTERY AND METHOD OF EVALUATION:	DATE REV'D	DATE REV'D	DATE REV'D	DATE REV'D	RESULTS

Documentation of attempts to involve parent/guardian

DATE	COMMENT
_____	_____
_____	_____
_____	_____
_____	_____

This is to certify that I was invited to participate in the writing of this I.E.P. and that I understand its contents. As the parent/legal guardian of the above named child, I have had explained to me the due process rights and procedures and I have been provided a copy of these rights. I understand that a copy of this I.E.P. will be given to me upon my request.

WHITE COPY — SPECIAL EDUCATION TEACHER
CANARY COPY — FILE
PINK COPY — PARENT

_____ _____
Parent/Guardian Signature Date

2 of 2

PINEY MOUNTAIN PRESS

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ED 200227

VOC-PLAN

PREVIEW MANUAL

PINEY MOUNTAIN PRESS,INC.

P.O.BOX 333
CLEVELAND, GA. 30528
404-864-7180

* ABOUT OUR QUICK SCAN PREVIEW MANUAL:

The quick scan manual is designed to provide you with a quick look into the VOC-PLAN System. The first part of the manual shows some of the primary screen displays and an explanation of the main functions of the program. The second part of the manual contains samples of the documentation and reports. Although this manual covers the metals cluster area, all Voc-Plan's programs operate in the same fashion - only the task listings are unique.

We hope this quick tour of our product will help you discover its many benefits.

Please call collect at (404) 864-7180 if you have any questions or recommendations.

INTRODUCTION

* VOC-PLAN is a user friendly computer program designed to provide Special Needs Educators as well as regular vocational instructors with a quick, efficient method of developing an Individualized Vocational Education Program for their students.

* VOC-PLAN enables instructors to create a more flexible and definitive educational plan than traditional hand developed methods and in a fraction of the time.

* VOC-PLAN is truly individualized since the bank of short term objectives can be modified to suit the instructor's, the educator's, the student's and the school system's specific needs.

* VOC-PLAN is presented in a standard I.E.P. format so that it can be used as a formal Vocational I.E.P. for handicapped individuals or as an informal Vocational Plan for disadvantaged and regular vocational students.

* VOC-PLAN allows the user to define the Criteria for Mastery, Evaluation Techniques, Review Dates and Tasks Mastered for each vocational objective.

* VOC-PLAN contains over 2,500 short term vocational objectives for all secondary and post secondary training programs including the following vocational areas:

Agriculture	DE/Marketing	Health
Auto Body	Drafting	Home Economics
Construction	Electro-Mech Tech	Horticulture
Cosmetology	Electronics	Industrial Arts
Data Processing	Food Service	Metals
DCT	Graphic Arts	Transportation

(The above titles may be modified to your specific course titles)

* VOC-PLAN includes 1 Program Disk, 1 Data Disk for each vocational training area requested, 1 Student Disk, 1 User's Manual, and 50 Standard I.E.P. Forms (3 page, NCR)

* VOC-PLAN costs.....$ 89.95 per Vocational Area
80.00 ea. for eight or more Voc. Areas
15.00 per pkg. of 50 IEP forms

QUICK SCAN

VOC PLAN

MAIN MENU

1....CREATE IEP
2....PRINT IEP OBJECTIVES
3....CHANGE IEP DATA DISK
4....PRINT STUDENT IEP
5....GET/SAVE/ERASE IEP FROM DISK
6....ERASE IEP FROM MEMORY
7....ADD/EDIT IEP OBJECTIVES
8....CREATE A STUDENT DISK
9....QUIT

VOC-PLAN is organized according to a menu. A menu allows you to access various functions in the program by typing the number beside the option you wish to utilize.

VOC PLAN

STUDENT :Johnny Future DATE :10/30/86
GRADE : 9 PROVIDER : Smith

1..Insert Obj. 2..Edit Criteria
3..Deselect Objectives 4..View Objectives

ENTER OBJECTIVE NO. 23
Method of Evaluation : Observation
Criteria for Mastery : 80%

--The following OBJECTIVES have been selected--
1..001 2..002 3..004 4..007 5..023

The Create an I.E.P. function allows the user to develop an Individual Education Plan on a student/students. The user may select specific objectives to include in the student's I.E.P., define the Criteria for Mastery and Evaluation Techniques, and enter the student's name, date, grade and provider.

QUICK SCAN

VOC PLAN

PRINT IEP OBJECTIVES

1....PRINT IEP OBJECTIVES

2....LIST IEP OBJECTIVES

<ESC> MAIN MENU

The Print I.E.P. objectives function enables the user to list on the screen or print a hard copy of all vocational objectives in a specific area.

VOC PLAN

PUT THE NEW IEP DISK IN A DRIVE

<RETURN> TO CONTINUE <ESC> TO EXIT

The Change I.E.P. Data Disk function is used when the user wishes to change a Vocational Data Disk. For example, if you wish to change from a FOOD SERVICE Data Disk to a METALS Data Disk you use this option to load your METALS objective into the program.

QUICK SCAN

VOC PLAN

1...PRINT TO SCREEN Y OR N
2...CHARACTER PER INCH OF YOUR PRINTER 10/12
3...CONTINUOUS PAPER Y OR N
4...FIRST OBJECTIVE IS A HEADING Y OR N

ALIGN PRINT HEAD WITH PAGE ON THE FORM
<CTRL S> TO STOP & START LISTING OR PRINTING
<ESC> TO EXIT PRINTING OR LISTING

<1-4> OR <RETURN> TO PRINT OR <ESC> TO EXIT

The Print Student I.E.P. function permits the user to print or list a student's Individual Education Plan.

VOC PLAN

GET/SAVE /ERASE MENU

1...GET STUDENT IEP FROM DISK
2...SAVE STUDENT IEP TO DISK
3...ERASE STUDENT IEP FROM DISK
4...ERASE ALL STUDENT IEP'S FROM DISK

<ESC>...MAIN MENU

The Get/Save /Erase IEP From Disk function allows the user to save up to 40 student I.E.P.'s on a disk. Additional student I.E.P.'s can be saved by simply creating another Student Disk. This feature also permits any student to be erased from the Student Disk.

QUICK SCAN

VOC PLAN

MAIN MENU

1...EDIT/ADD OBJECTIVE
2...RETURN TO MAIN PROGRAM
3...CREATE AN IEP DATA DISK
4...CHANGE IEP DATA DISK
5...QUIT

The Add/Edit I.E.P. Objectives function permits the user to add objectives to the current data base of objectives, to delete objectives and modify objectives. New objectives may be inserted anywhere in the existing list so the user may arrange the objectives in any order desired.

VOC PLAN

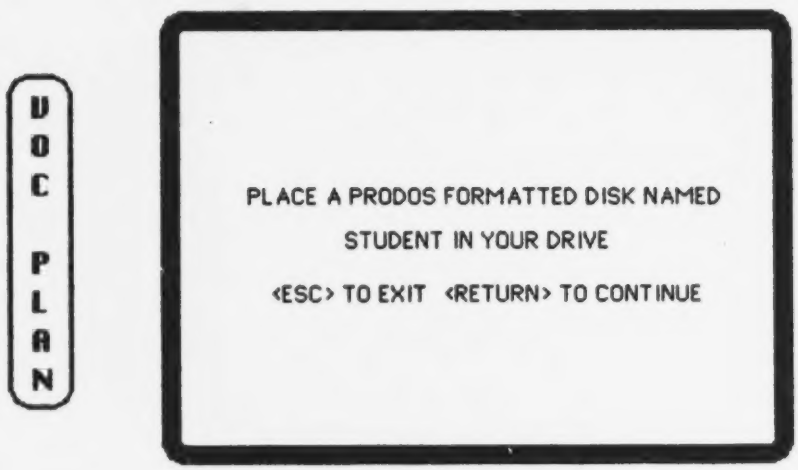
<DELETE>	Remove a character
<OPEN APPLE D>	Delete all characters to the rt.
<RIGHT ARROW>	Moves cursor 1 character to rt.
<LEFT ARROW>	Moves cursor 1 character to lft.
<OPEN APPLE B>	Moves cursor to begining of txt.
<OPEN APPLE M>	Moves cursor to middle of text
<OPEN APPLE E>	Moves cursor to end of text
<RETURN>	Accepts text
<ESC>	Returns to previous menu w/o accepting text

DO NOT format text with spaces or returns at the end of lines.
(*) OBJECTIVES IN (Vocational Area)
ADD AFTER WHICH OBJECTIVE? (*)

Follow the instructions on the help screen when adding or editing I.E.P. Objectives.

QUICK SCAN

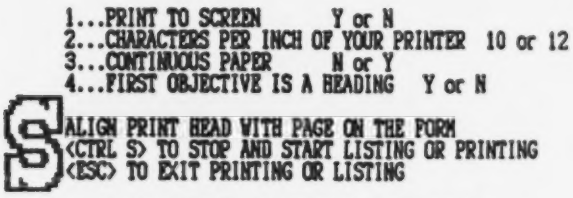
The Erase I.E.P. From Memory function permits the user to remove the current student I.E.P. from memory.



The Create a Student Disk function enables the user to create as many Student Disks as they require. Each Student Disk will save up to 40 student I.E.P.'s.

IV. PRINT STUDENT IEP

A. Press <4> then press <return> in the main menu to print or list a student IEP. Your next screen will read:


1...PRINT TO SCREEN Y or N
2...CHARACTERS PER INCH OF YOUR PRINTER 10 or 12
3...CONTINUOUS PAPER N or Y
4...FIRST OBJECTIVE IS A HEADING Y or N
ALIGN PRINT HEAD WITH PAGE ON THE FORM
<CTRL S> TO STOP AND START LISTING OR PRINTING
<ESC> TO EXIT PRINTING OR LISTING
<1-4> OR <RETURN> TO PRINT OR <ESC> TO EXIT_

B. Press <1> then press <return> to print to screen or to printer.

C. Press <2> then press <return> to set the characters per inch to match your printer. (Check your printer to see if it prints 10 or 12 characters per inch). If the objectives do not fit correctly in the form, reset the characters per inch to either 10 or 12 in the program.

D. Press <3> then press <return> to change from continuous paper feed to single sheet feed.
Y= Continuous paper feed
N= Single sheet feed - Use single sheet feed for printed forms.

E. Press <4> then press <return> to tell program if the first objective is a heading.
Y= First objective is a heading
N= First objective is not a heading

(A heading would be a general statement about how and when objectives will be accomplished. A heading may be entered as your first objective in the Creating An IEP in the main menu). (See Line VII, B. 6. in outline for creating a header).

F. Align print head with first line (Page) on form. Turn printer on.

G. Press <Return> to Print

H. Press <esc> to go back to main menu.

I. Press <Control and S> at the same time to stop and start listing or printing.

J. Press <esc> to exit back to main menu when printing or listing.

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INDIVIDUALIZED VOCATIONAL EDUCATION PROGRAM
IVEP
SHORT TERM OBJECTIVES

Page 1
Date: 11-10-86
Grade: 9

Student JOHNNY FUTURE Program CONSTRUCTION Service Provider SMITH

SHORT TERM OBJECTIVES INCLUDING CRITERIA FOR MASTERY AND METHOD OF EVALUATION:	DATE REV'D	DATE REV'D	DATE REV'D	DATE REV'D	RESULTS
AFTER INSTRUCTION FOR ONE PERIOD A DAY FOR ONE SCHOOL YEAR THE STUDENT WILL: 1. Demonstrate manipulations of the trowel. METHOD OF EVALUATION: OBSERVATION CRITERIA FOR MASTERY: 80% 2. Build a brick corner which is plumb and level. METHOD OF EVALUATION: OBSERVATION CRITERIA FOR MASTERY: 80% 3. Cut brick and block by various methods. METHOD OF EVALUATION: OBSERVATION CRITERIA FOR MASTERY: 80% 4. Demonstrate knowledge of spacing requirements. METHOD OF EVALUATION: OBSERVATION CRITERIA FOR MASTERY: 80% 5. Identify the names and uses of lines and symbols on a working drawing. METHOD OF EVALUATION: TEST CRITERIA FOR MASTERY: 70% 6. On a working drawing, identify different views and their uses. METHOD OF EVALUATION: TEST CRITERIA FOR MASTERY: 70%					

Documentation of attempts to involve parent/guardian

DATE	COMMENT

This is to certify that I was invited to participate in the writing of this I.E.P. and that I understand its contents. As the parent/legal guardian of the above named child, I have had explained to me the due process rights and procedures and I have been provided a copy of these rights. I understand that a copy of this I.E.P. will be given to me upon my request.

WHITE COPY — SPECIAL EDUCATION TEACHER
CANARY COPY — FILE
PINK COPY — PARENT

Parent/Guardian Signature _____ Date _____